

## SITE INVESTIGATION REPORT

Naval Exchange Service Station NAVSTA Newport, RI LUST No. LS-2295

## **FINAL**

Prepared for:



Department of the Navy Naval Facilities Engineering Command, Mid-Atlantic 9742 Maryland Ave. Norfolk, VA 23511-3095

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CTO WE40

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#### LIST OF ACRONYMS AND ABBREVIATIONS

BTEX Benzene, Toluene, Ethylbenzene & Xylenes

CCRF Coddington Cove Rubble Fill

CLEAN Comprehensive Long-Term Environmental Action, Navy

CoC Chain-of-Custody
CTO Contract Task Order
DO Dissolved Oxygen

DoD Department of Defense

EDR Environmental Data Resources, Inc.

FRP Fiberglass Reinforced Plastic GPR Ground Penetrating Radar HASP Health and Safety Plan

ICDEC Industrial/Commercial Direct Exposure Criteria (RIDEM)

LNAPL Light non-aqueous phase liquid
LUST Leaking Underground Storage Tank

MTBE Methyl-tert-butyl-ether

NAVFAC MIDLANT Naval Facilities Engineering Command, Mid-Atlantic

NAVSTA Naval Station

Navy U.S. Department of the Navy NTU Nephelometric Turbidity Unit

NEX Naval Exchange

ORP Oxidation-Reduction Potential
OHM Oil and/or Hazardous Materials

PID Photoionization Detector

PPM Parts per million
PVC Polyvinyl Chloride
Resolution Resolution Consultants

RDEC Residential Direct Exposure Criteria (RIDEM)

RIDEM Rhode Island Department of Environmental Management

SAP Sampling and Analysis Plan

SAA Same as Above SI Site Investigation

SIR Site Investigation Report

SOP Standard Operating Procedure
TPH Total Petroleum Hydrocarbons
USGS United States Geological Survey

UST Underground Storage Tank
UTM Universal Transverse Mercator
VOCs Volatile Organic Compounds
VOVs Volatile Organic Vapors

#### 1.0 INTRODUCTION

This report presents the results of a Site Investigation (SI) conducted at the Naval Exchange (NEX) Service Station located in the Coddington Cove section of the Naval Station (NAVSTA) Newport, Rhode Island. This report was completed by Resolution Consultants (Resolution) for the U.S. Department of the Navy (Navy) and the Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT). The subject property is currently occupied by an L-shaped building; the westernmost portion of which is occupied by the NEX Service Station (a gasoline-dispensing facility, herein referred to as the "Site") and the easternmost portion of which is occupied by the MWR Auto Skills Shop (garage bays used on the weekend for light auto maintenance training).

Prior to the current site use as a service station, the Site was previously occupied by the Naval Education and Training Center (Building 404). According to the demolition plan for Building 404 dated August 18, 1987, which was provided by NAVSTA Newport, there was a 2,000-gallon No. 2 fuel oil underground storage tank (UST) formerly located at the northwest corner of Building 404. The 2,000-gallon UST was removed as part of the 1987 demolition project. There was also a former 550-gallon double-walled FRP waste oil UST east of the gasoline UST pad. The 550-gallon UST was installed in September 1991 and subsequently removed in October 1997 ("UST Closure Assessment Report" Clean Environment Inc., December 1997) during which no evidence of petroleum impacts were observed.

There are currently three 20,000-gallon gasoline double-walled fiberglass reinforced plastic (FRP) USTs located adjacent to the northeast corner of the Site building and one 2,500-gallon doubled-walled FRP No. 2 fuel oil UST located west of the Site building. The gasoline USTs were installed in June 1991 and the fuel oil UST was installed in January 1990 in conjunction with the construction of the current Site building.

In April 2013, a construction project was underway at the NEX Service Station to replace the current canopy. On April 20, 2013, the Navy's contractor observed petroleum sheen on the groundwater in one of the Site excavations. Depth to groundwater was approximately 6 feet below grade. Visual and olfactory evidence of petroleum-impacted soil (approximately 3 to 4 feet in vertical thickness) was also observed in the "southwest B footing," as noted by the contractor. Based on the current Site configuration, the southwest canopy footing is in the vicinity of the northwest corner of the Site building and in the location of the former 2,000-gallon UST that was removed as part of the demolition of Building 404.

The observations of impacted soil and groundwater were subsequently reported to the Rhode Island Department of Environmental Management (RIDEM) by NAVSTA Newport personnel, via email. On May 24, 2012, RIDEM issued Leaking Underground Storage Tank (LUST) number LS-2295 and requested a SI be conducted at the Site and a Site Investigation Report (SIR) be completed by July 24, 2013. A copy of the SIR Request Letter is included in Appendix A. On May 29, 2013, Navy personnel requested a 60-day extension request to secure the necessary contractual items and funding to conduct the investigation. On September 16, 2013, Resolution, on behalf of the Navy, issued an additional extension request based on the expected timeframe necessary to complete the site investigation and prepare an SIR. The approved due date for the SIR granted by RIDEM is February 27, 2014.

The objectives of this investigation are listed below. A Sampling and Analysis Plan (SAP) was provided to RIDEM for concurrence prior to implementing the investigation.

- Refine the extent of soil impacts from prior operations through soil sampling at 8 locations surrounding the Site.
- Refine the extent of groundwater impacts in the immediate area and downgradient of the Site through the installation of monitoring wells and collection of 8 groundwater samples.
- Delineate the vertical and horizontal extent of contamination to the subsurface through the analysis of the data set.
- Compare analytical results to applicable RIDEM Criteria, where established.

The SAP was approved by RIDEM and work was conducted per SIR requirements, specified under the RIDEM Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials (RIDEM, 2011). Analytical results were compared to criteria set forth in RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases ("Remediation Regulations", RIDEM, 2011).

#### 2.0 SITE DESCRIPTION AND HISTORY

## 2.1 Site Ownership and Location

Site owner: US Navy

Site occupant: US Navy

Site location: Corner of Whipple Street and Avenue J,

Newport, RI

County: Newport County

Assessors' Plats: Plat 2, City of Newport

United States Geological Survey (USGS) quadrangle: Prudence Island quadrangle

Latitude, Longitude: 41°31'9"N, 71°18'56" W (approximate)

Universal Transverse Mercator (UTM) Meter: X – 306779.0

Y - 4598772.0 (approximate)

Standard Industrial Classification Numbers: 554100 (gasoline station)

541102 (convenience store)

Refer to Figure 1, Site Locus Map, for geographic location and Figure 2, Site Plan, for details of the subject Site.

#### 2.2 Present Site Use

The subject property is currently occupied by an L-shaped building; the westernmost portion of which is occupied by the NEX Service Station, a gasoline dispensing facility, and the easternmost portion is occupied by the MWR Auto Skills Shop, garage bays used on the weekend for light auto maintenance training. The Site is located on Coddington Cove in the southwestern portion of NAVSTA Newport, Rhode Island (Figure 1), at the southeastern corner of the intersection of Whipple Street and Avenue J.

#### 2.3 Site History

Prior to use as the NEX Service Station, the Site was previously occupied by the Naval Education and Training Center (Building 404). Environmental Data Resources, Inc. (EDR) provided historical

topographic maps, Sanborn Fire Insurance maps and aerial photographs for the vicinity of the Site. Resolution reviewed these historical documents for development history of the Site. The following table is a summary of the information obtained from those documents. Copies of the historical information provided by EDR are included in Appendix B.

Year	Document Source	Observations
1892, 1919	Topographic Map	No buildings are shown in the vicinity of the Site.
1921, 1938,	Sanborn Map, Aerial Photograph	According to the Sanborn Map from 1921, the Site and surrounding area is occupied by multiple buildings labeled "United States Government Barracks". The aerial photograph from 1938 shows similarly sized rectangular shapes in this area; however, they do not appear to be buildings.
1942	Topographic Map	No buildings are shown in the vicinity of the Site.
1951, 1955, 1962, 1969, 1970, 1975, 1981	Aerial Photograph, Topographic Map	A building of similar configuration to Building 404occupies the Site.
1995, 1996, 2005, 2006, 2008, 2010, 2012	Aerial Photograph, Topographic Map	A L-shaped building of similar configuration to the current Service Station occupies the Site.

## 2.4 UST Compliance History

Information pertaining to the compliance history for the USTs that are located at the subject Site was obtained from NAVSTA Newport personnel and from RIDEM. The Site is identified by RIDEM as UST Facility ID 3251. This reported release is designated by RIDEM as LUST No. LS-2295.

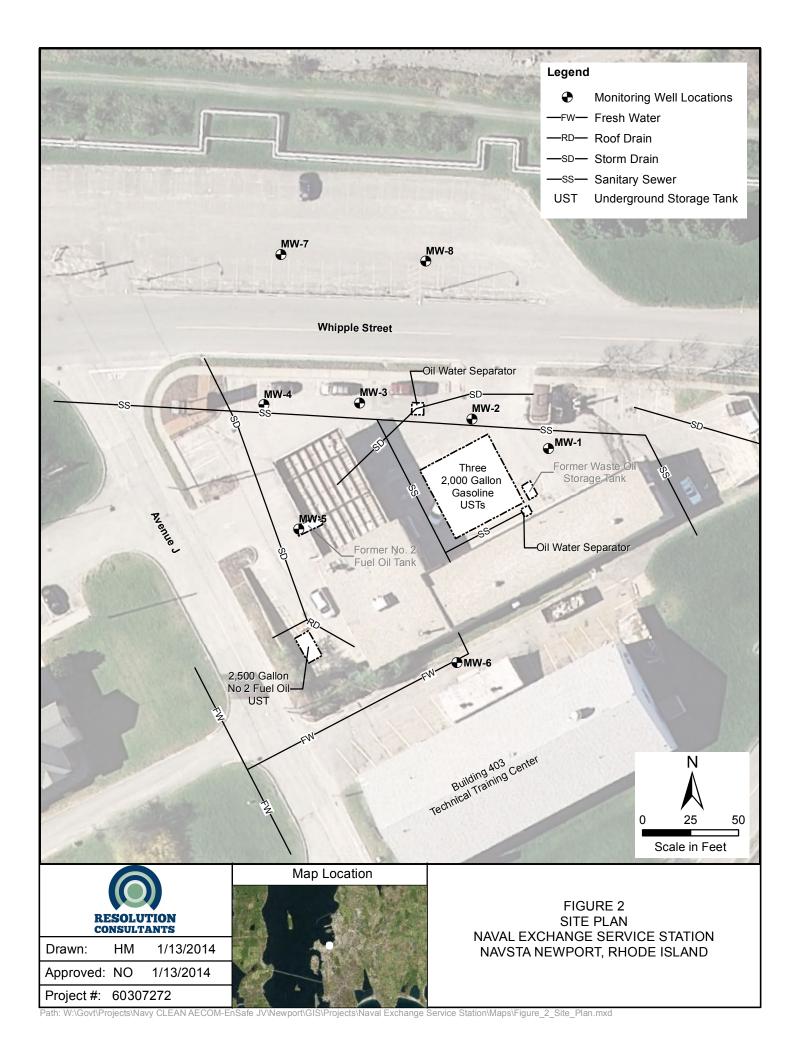
There are currently three 20,000-gallon gasoline double-walled FRP USTs located adjacent to the northeast corner of the Site building and one 2,500-gallon doubled-walled FRP No. 2 fuel oil UST located west of the Site building. According to a letter from RIDEM dated December 7, 1989, approval was granted for the installation of these four USTs and a fifth UST (a 550-gallon waste oil UST, which was subsequently removed in 1997). According to UST registration documents reviewed at RIDEM, the gasoline USTs were installed in June 1991 in conjunction with construction of the current Site building. The 2,500-gallon fuel oil UST was installed in January 1990. The tanks were tightness tested and certified as tight in April and July 1991, according to records reviewed at NAVSTA Newport.

A Certificate of Registration was issued by RIDEM Division of Waste Management UST Section on February 17, 1994 for Facility ID 3251. Letters of Compliance were issued by RIDEM dated May 11, 2004 July 18, 2007, and March 1, 2011, indicating the facility had been inspected and was found to be in compliance relative to RIDEM's UST Regulations.

Documents reviewed at RIDEM indicate that the Site underwent dispenser upgrades in December 2005 and the canopy, dispenser and product piping were upgraded in 2013.

A tank tightness test was conducted on the gasoline USTs on July 18, 2013 during which all three current USTs tested tight. This document is on file at RIDEM.





#### 3.0 CURRENT AREA CHARACTERISTICS

#### 3.1 Site Abutters

The Site is bound by Whipple Street to the north, beyond which is a parking lot and Narragansett Bay, the intersection of Whipple Street and Peary Street to the east, Building 403, Technical Training Center, to the south, and Avenue J to the west, beyond which is the Navy Lodge.

## 3.2 Water Supplies and Surface Water bodies

The nearest surface water body to the Site is Narragansett Bay, which is located approximately 200 feet north of the Site, beyond Whipple Street.

At NAVSTA Newport, groundwater is generally located within aquifers located in the glacial till and bedrock. The groundwater underlying the Site is classified as Class GB. Groundwater classified as GB is groundwater which may not be suitable for drinking water use without treatment due to known or presumed degradation. Groundwater was observed at approximately 3 to 10 feet below grade during this investigation. Groundwater beneath the Site may be tidally influenced, based on the proximity of Narragansett Bay and observations made by Site contractors.

The closest wellhead protection area is approximately 2 miles southeast of the Site. According to NAVSTA Newport Public Works personnel, there are no drinking water supply wells in the Site vicinity.

#### 3.3 Subsurface Conditions

The Site is located approximately 15 to 25 feet above mean sea level. In general, the topography of the Site is flat; however the Site is set into an upward sloping hill to the south. Groundwater is presumed to flow to the northwest towards Narragansett Bay.

Located within the Narragansett Basin, characteristics are primarily Pennsylvanian aged sedimentary rocks. Soil types at NAVSTA Newport consist of silt and sandy loam on the east side, with sand, gravel, cobbles, stones, boulders, and rocks on the west side (Malcolm Pirnie, 2005). Soil characteristics observed during drilling indicate that soil consists of primarily silty sand.

According to the Bedrock Geology Map of Rhode Island the bedrock underlying the Site is from the Pennsylvanian age and the primary rock type is Arenite with a secondary rock type of Shale. Bedrock is reported at approximately 17 to 40 feet below ground surface; however, presumed bedrock was encountered at 12 to 14 feet in monitoring well MW-7 and MW-8.

Depth to water ranged from 3 to 10 feet, as observed in monitoring wells installed as part of this SI.

#### 3.4 Site Utilities

The following section contains information on the utilities located on and adjacent to the investigation area.

- Sanitary Sewer There are no known septic systems in the vicinity of the Site. According to the Site Grading and Utility Plan for the Naval Exchange Service Station, dated September 28, 1988, a sanitary sewer line crosses the northern portion of the Site parking lot, from east to west. The sewer line enters the Site building from the north from this line, near the gasoline USTs.
- <u>Catch Basins and Stormwater Drains</u> According to the Site Grading and Utility Plan for the Naval Exchange Service Station, dated September 28, 1988, provided by NAVSTA Newport, there is a catch basin and storm water drainage system on the Site. There are six catch basins and a roof drainage system that connects to a Vortex drainage system located along the northern edge of the Site.
- Water Supply According to the Site Grading and Utility Plan for the Naval Exchange Service Station, dated September 28, 1988, provided by NAVSTA Newport, a domestic water supply line enters the rear (south side) of the building. The water line enters the property from Avenue J. Water for all of NAVSTA Newport comes from the City of Newport's Lawton Valley and Station 1 treatment plants.
- Natural Gas There is no natural gas present on Site.
- <u>Electricity, Telephone & Cable</u> Underground electricity lines enter the building from the light post in the northeast corner of the property.
- <u>Oil/Water Separator</u> According to the Site Grading and Utility Plan for the Naval Exchange Service Station, dated September 28, 1988, provided by NAVSTA Newport, there are two "oil separators" on the site associated with the storm drainage system beneath the Site. According to Navy personnel the oil water separator is cleaned out once a year.

#### 4.0 RECORD REVIEW

#### 4.1 Database Information

EDR provided environmental regulatory database information for the Site and surrounding area. The report, dated September 11, 2013, includes records of hazardous waste permits, state registered USTs, state and federal records, and reported on-site and/or area contamination. Each database was searched within a prescribed search radius from the Site property boundary. NAVSTA Newport is identified as Department of Defense (DOD) land and is included on the National Priorities List (NPL). The subject Site was not identified on any of the databases searched by EDR. The Coddington Cove Rubble Fill (CCRF) area is located approximately 1/8 mile east northeast of the subject Site. A copy of the EDR report is included in Appendix B. Please refer to the database report for additional information.

According to the well search conducted by EDR, no potable drinking water wells were found within the prescribed radius.

#### 5.0 SUMMARY OF PREVIOUS ENVIRONMENTAL INFORMATION

## 5.1 Previous Site Investigation Activities

1997—A 550-gallon double-walled FRP waste oil UST was installed in September 1991, east of the gasoline UST pad. The waste oil UST was removed in October 1997 ("UST Closure Assessment Report" Clean Environment Inc., December 1997) during which no evidence of petroleum impacts were observed. During the investigation four head space screenings were conducted with a 10.6eV PID, all of which were less than or equal to 5 ppm. One sample was submitted for analysis and the results indicate a TPH concentration of less than 10 mg/kg and no VOC concentrations above the laboratory detection limits.

2005—In December 2005, product piping and spill containment beneath the dispensers were replaced at the Site. Excavation beneath the dispensers was completed to remove visually and olfactory impacted soil to a depth of 27 to 32.5 inches below grade. Soil at the bottom of each excavation was then screened with a Photoionization Detector (PID) for the presence of volatile organic vapors (VOVs) above instrument detection limits. No PID readings were detected and a total of approximately 8 cubic yards of soil was removed and temporarily stockpiled on-site for eventual off-site disposal. Confirmatory laboratory analysis conducted on soil collected from the bottoms of the excavations indicated the presence of Total Petroleum Hydrocarbons (TPH) at 9,747 milligrams-per-kilogram (mg/kg) in the sample collected from beneath former dispensers 3 & 4 (the southeastern-most dispenser). Additional soil was removed from beneath dispensers 3 & 4 to a depth of 49 inches below grade. A confirmatory soil sample was collected from the bottom of the excavation and submitted for confirmatory analysis of TPH. Laboratory results indicated TPH was not detected above laboratory detection limits in this sample and no additional excavation was required. A total of approximately 20 tons of petroleum-impacted soil was removed from the Site for off-site disposal.

2013—In April 2013, a construction project was underway at the NEX Service Station to replace the current canopy. On April 20, 2013, the contractor observed petroleum sheen on the groundwater in one of the canopy footing excavations. Depth to groundwater was approximately 6 feet below grade. Visual and olfactory evidence of petroleum-impacted soil (approximately 3 to 4 feet in vertical thickness) was also observed in the "southwest B footing," as noted by the contractor. Based on the current Site configuration, the southwest canopy footing is in the vicinity of the northwest corner of the Site building and the former location of the former 2,000-gallon UST that was removed as part of the demolition of Building 404. During construction, the contractor discovered deficiencies with the existing underground piping for the gasoline USTs, including

improper spacing, inadequate burial depth, and direct contact with electrical conduits for piping. Therefore, approval was granted to replace the entire underground product piping system.

#### 6.0 FIELD INVESTIGATIONS

## 6.1 Pre-drilling Activities

## 6.1.1 Health and Safety Plan

Resolution Consultants developed a Health and Safety Plan (HASP) that is specific to this Site. The development of this plan is required by the Occupational Safety and Health Administration (OSHA) under Hazardous Waste Operations & Emergency Response 29 CFR 1910.120. The HASP is designed to reduce the risk of physical or chemical exposures that may affect workers in the proposed work area. It includes information about chemicals expected on the Site, health and safety procedures for working on-Site and emergency response procedures, and is maintained on file with Resolution Consultants.

## 6.1.2 Dig-Safe

Rhode Island requires that, at least 48 hours prior to the initiation of any subsurface work (drilling, backhoe operation, etc.), a Dig-Safe inspection must be performed at the subject property. This inspection consists of the marking of underground utility locations by Dig-Safe personnel. These utilities include natural gas, electric, telephone, and cable. Dig-Safe was contacted for this Site prior to any subsurface work. In addition, NAVSTA Newport Public Works personnel inspected each proposed boring location to ensure there were no utilities in the vicinity.

## 6.1.3 Ground Penetrating Radar (GPR)

On November 12, 2013 Resolution oversaw geophysical surveys conducted by Northeast Geophysical, Inc. (NE Geophysical), of Bangor, Maine. GPR and Electromagnetic (EM) surveys were conducted around each proposed boring, to locate and mark any underground utilities/features.

#### 6.2 Soil Boring and Monitoring Well Installation

Between November 13 and November 18, 2013, Resolution oversaw the installation of 8 monitoring wells. Drilling was conducted by GeoSearch, Inc. of Fitchburg, Massachusetts.

Soil samples were screened in 2-foot intervals using a split spoon sampler and characterized for grain size and soil type, inspected for visual or olfactory evidence of petroleum impacts and screened in the field with a PID (MiniRae 2000 with 10.6 eV lamp). Either the sample exhibiting the highest PID reading, or in lieu of a high reading, the sample closest to the groundwater interface was submitted for confirmatory laboratory analysis. Field screening results and soil characterization are recorded in the Geologic Logs included in Appendix C.

Groundwater was generally encountered between 3 and 10 feet below grade during the drilling program. Monitoring wells were installed at each location after the soil borings were completed. Ten feet of 0.010-inch slotted polyvinyl chloride (PVC) screen was installed to a depth that spanned the stabilized water table. Please refer to Appendix C for additional details regarding the well completion details.

## 6.3 Surveying

On November 19, 2013, the LRC Group of Poughkeepsie, New York, a licensed surveyor, was onsite to survey wellhead elevations and location information for the newly installed wells and other Site features. All features were surveyed into available NAD 83 elevation datum. This information was then used to create Figure 2, Site Plan for the subject Site, as well as calculate groundwater flow direction at the Site. Depth to groundwater at all 8 wells was collected prior to well development on November 18, 2013. Refer to Table 1 for wellhead elevations, depth to groundwater and calculated groundwater table elevations, and Figure 3 for calculated groundwater flow direction. The groundwater topography map shows the primary flow direction to the north towards Narragansett Bay, with components of flow to the northeast in the eastern portion of the Site and northwest in the western portion of the Site.

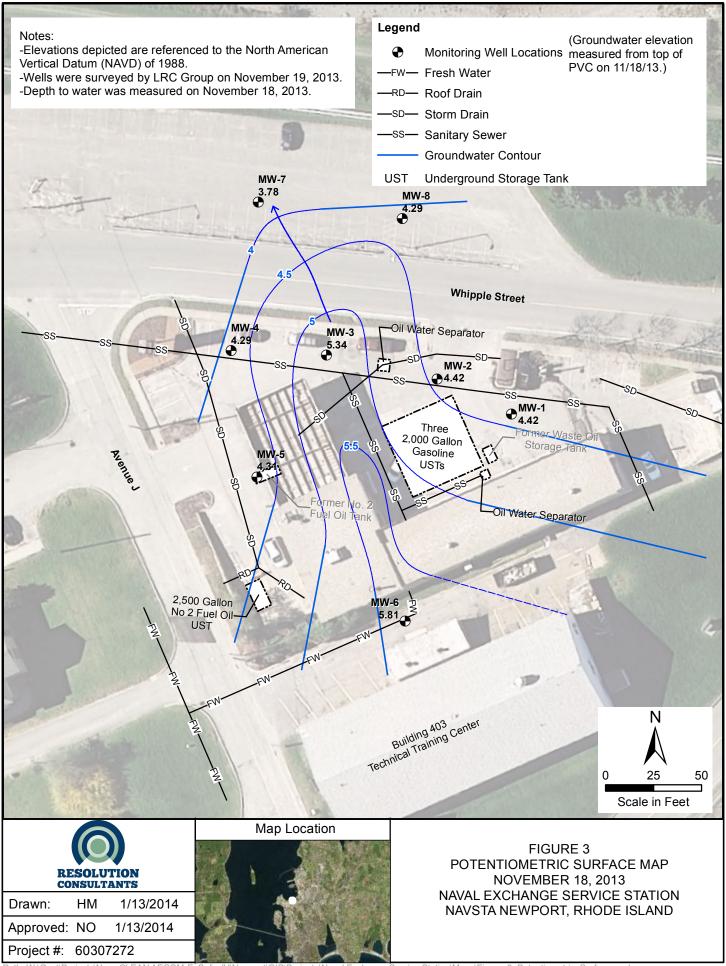
## 6.4 Well Development

On November 18 through 20, 2013, Resolution Consultants developed the newly installed monitoring wells, following the RIDEM well development requirements summarized in the "Rules and Regulations for Groundwater Quality," (RIDEM, March 2005). Resolution used a Waterra® pump and surge block to develop each well to eliminate the visible silt and turbidity. Visible siltation remained in some of the wells, even after 10 well volumes were removed. After at least a 24-hour period, low-flow purging and sampling was initiated. Due to the high silt content in several of the wells, the turbidity in some of the wells could not be reduced below 50 Nephelometric Turbidity Units (NTUs). As shown on the groundwater sample collection records (Appendix E), NTUs ranged from 18 to 61 NTUs at the time of sample collection. For further well development and groundwater sampling details, refer to Appendix D, Well/Piezometer Development Record and Appendix E, Groundwater Sampling Collection Records.

## 6.5 Waste Management

Four drums of purge water, one drum of decontamination water and eight drums of soil cuttings were generated during this investigation. On January 7, 2014, TMC Environmental (TMC) of

Bellingham, Massachusetts was on-site to remove the drums for transportation to EP&S of VT Inc., Albany, New York for disposal. A copy of the bill of lading is included as Appendix F.



## TABLE 1 GROUNDWATER ELEVATION DATA NAVAL EXCHANGE SERVICE STATION NAVSTA NEWPORT, RI NOVEMBER 18, 2013

Well	Depth to Water (ft)	Depth to Bottom (ft)	Ground Elevation (ft)	Top of PVC Elevation (ft)	GW Elevation (ft)
MW-1	5.91	14.20	10.79	10.33	4.42
MW-2	5.64	13.33	10.50	10.06	4.42
MW-3	5.37	13.74	11.18	10.71	5.34
MW-4	6.01	13.30	10.75	10.30	4.29
MW-5	6.68	12.45	11.62	10.99	4.31
MW-6	10.19	19.43	16.71	16.00	5.81
MW-7	3.45	12.91	7.72	7.23	3.78
MW-8	3.06	13.28	7.91	7.35	4.29

## Notes:

ft = Feet

GW = Groundwater

<sup>\*\*</sup>Survey conducted by LRC on November 19, 2013. Elevations are referenced to the North American Vertical Datum (NAVD) of 1988. Depth to water measurements were taken from top of PVC.

#### 7.0 ANALYTICAL RESULTS

## 7.1 Applicable Soil and Groundwater Categories

To determine the applicable Soil and Groundwater Quality Objectives for soil and groundwater, the Groundwater Classification for the subject property was evaluated. Based on the property's location, and according to the RIDEM Groundwater Classification map, the subject property lies within a GB area. Groundwater classified as GB is that groundwater which may not be suitable for drinking water use without treatment due to known or presumed degradation. There is no goal to restore groundwater classified as GB to drinking water quality; however, groundwater remediation may be required in order to protect public health and the environment. Groundwater results are compared to the GB Groundwater Objectives.

Soil results are compared to RIDEM Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial Direct Exposure Criteria (ICDEC).

## 7.2 Soil Analysis

Soil samples were collected from each soil boring prior to well installation, MW-1 through MW-8, and submitted based on field observations and screening, as discussed in Section 6.2. The samples were stored on ice in the field and picked up on site via a courier from Katahdin Analytical Services under Chain of Custody (CoC) to their facility in Scarborough, Maine for analysis of volatile organic carbons (VOCs) by EPA Method 8260, TPH, and gasoline range organics (GRO) by EPA Method 8015C (modified to meet RIDEM total TPH criteria objectives).

According to laboratory analytical results, concentrations of TPH were detected in soil samples submitted from all borings. However, concentrations were below the RIDEM RDEC and ICDEC in all soil samples with the exception of RS-MW5, collected prior to the installation of MW-5. In RS-MW5, concentrations of TPH exceeded RIDEM RDEC standard for TPH C10-C36 Bunker Fuel, but was below the ICDEC. No concentrations of VOCs were detected above laboratory method detection limits in any of the samples submitted for analysis. Refer to Figure 4 for soil sample locations, Table 2 for a summary of soil analytical results.

### 7.3 Groundwater Analysis

Following the development of each well, a peristaltic pump was used to collect groundwater. Groundwater was analyzed in-situ using a YSI for pH, specific conductivity, temperature, dissolved oxygen (DO) and Oxidation-Reduction Potential (ORP) in accordance with the modified Standard

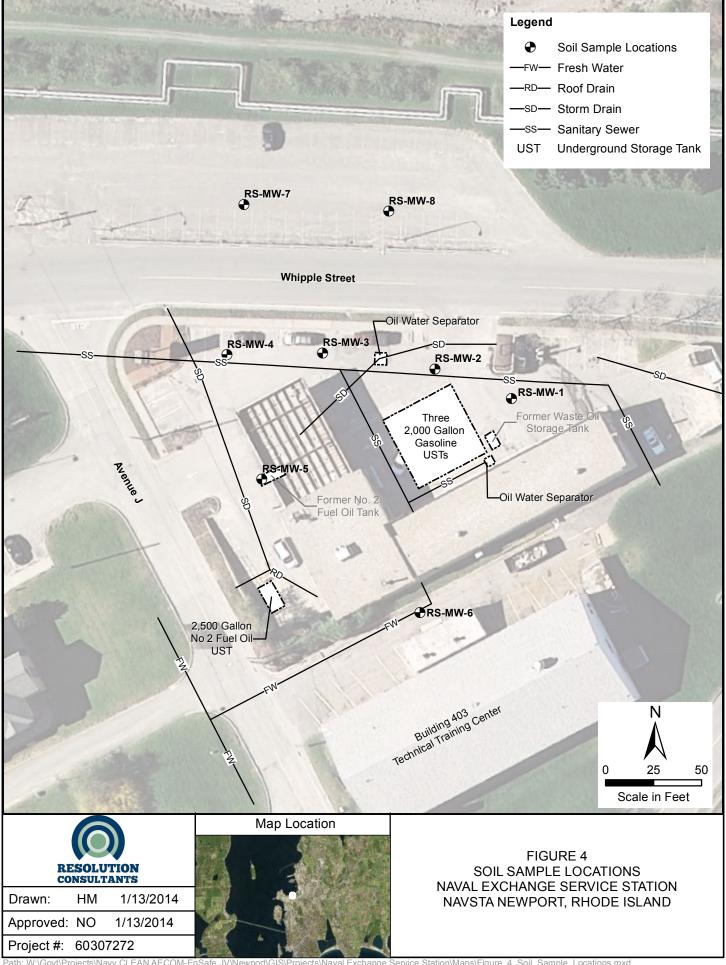
Operating Procedure (SOP) 3-14 and EPA Region 1 Low-Flow Sampling Guidance. Refer to the Low-Flow Sampling Logs in Appendix D for additional details.

Groundwater was submitted for analysis of VOCs (benzene, toluene, ethylbenzene, xylenes [BTEX] and methyl-tert-butyl-ether and [MTBE]). Note that groundwater was not analyzed for TPH because there is no Groundwater Objective established for TPH.

According to laboratory analytical results, concentrations of VOCs were not detected above laboratory method detection limits in any sample, with the exception of MTBE detected at low concentrations in groundwater samples collected from MW-2 and MW-5. These concentrations were below the RIDEM GB Groundwater Objectives. Refer to Figure 3 for monitoring well locations, Table 3 for a summary of groundwater analytical results.

#### 7.4 Data Validation

Limited data validation was conducted for VOC and TPH data packages received from the laboratory. All data was deemed sufficient for its intended purpose. Refer to the data validation memos included in Appendix G. Copies of the laboratory reports have also been included as Appendix H.



## TABLE 2 SOIL ANALYTICAL RESULTS NAVAL EXCHANGE SERVICE STATION NAVSTA NEWPORT NOVEMBER 2013

Chemical Name	RIDEM Residential Soil Criteria	RIDEM Industrial/ Commercial Soil Criteria	Unit	<b>RS-MW1</b> 11/14/2013	<b>RS-MW2</b> 11/15/2013	<b>RS-MW3</b> 11/15/2013	<b>RS-MW4</b> 11/18/2013	<b>RS-MW5</b> 11/18/2013
TOTAL SOLIDS	NS	NS	%	86	84	90	86	86
TPH-C10-C36 BUNKER FUEL	500	2500	mg/kg	100	5.5	120	3.8 J	950
TPH-GASOLINE RANGE C6-C12	500	2500	mg/kg	< 2.3 U	< 2.4 U	< 2.0 U	< 2.0 U	170 J
BENZENE	2500	200000	ug/kg	< 130 U	< 140 U	< 130 U	< 130 U	< 120 U
ETHYLBENZENE	71000	10000000	ug/kg	< 130 U	< 140 U	< 130 U	< 130 U	< 120 U
M- AND P-XYLENE	NS	NS	ug/kg	< 260 U	< 290 U	< 260 U	< 260 U	< 250 U
METHYL TERT-BUTYL ETHER	390000	10000000	ug/kg	< 130 U	< 140 U	< 130 U	< 130 U	< 120 U
O-XYLENE	NS	NS	ug/kg	< 130 U	< 140 U	< 130 U	< 130 U	< 120 U
TOLUENE	190000	10000000	ug/kg	< 130 U	< 140 U	< 130 U	< 130 U	< 120 U
XYLENES, TOTAL	110000	10000000	ug/kg	< 400 U	< 440 U	< 390 U	< 380 U	< 380 U

#### Notes:

Red and Bold font indicates exceedance of RIDEM Soil Residential criteria

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

U indicates not detected above report detection limit

J indicates estimated value

NA = Not Analyzed

NS = No Standard

FD = Field Duplicate

% = percent

TPH = Total Petroleum Hydrocarbons

## TABLE 2 SOIL ANALYTICAL RESULTS NAVAL EXCHANGE SERVICE STATION NAVSTA NEWPORT NOVEMBER 2013

Chemical Name	RIDEM Residential Soil Criteria	RIDEM Industrial/ Commercial Soil Criteria	Unit	<b>RS-MW5-FD</b> 11/18/2013	<b>RS-MW6</b> 11/15/2013	<b>RS-MW7</b> 11/14/2013	<b>RS-MW8</b> 11/14/2013	<b>TB-SO</b> 11/8/2013
TOTAL SOLIDS	NS	NS	%	86	90	87	78	100
TPH-C10-C36 BUNKER FUEL	500	2500	mg/kg	1100	86	3.0 J	7.5 J	NA
TPH-GASOLINE RANGE C6-C12	500	2500	mg/kg	140 J	38	< 2.2 U	< 2.6 U	NA
BENZENE	2500	200000	ug/kg	< 130 U	< 140 U	< 120 U	< 160 U	< 120 U
ETHYLBENZENE	71000	10000000	ug/kg	< 130 U	< 140 U	< 120 U	< 160 U	< 120 U
M- AND P-XYLENE	NS	NS	ug/kg	< 260 U	< 270 U	< 240 U	< 320 U	< 250 U
METHYL TERT-BUTYL ETHER	390000	10000000	ug/kg	< 130 U	< 140 U	< 120 U	< 160 U	< 120 U
O-XYLENE	NS	NS	ug/kg	< 130 U	< 140 U	< 120 U	< 160 U	< 120 U
TOLUENE	190000	10000000	ug/kg	< 130 U	< 140 U	< 120 U	< 160 U	< 120 U
XYLENES, TOTAL	110000	10000000	ug/kg	< 390 U	< 400 U	< 360 U	< 470 U	< 380 U

#### Notes:

Red and Bold font indicates exceedance of RIDEM Soil Residential criteria

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

U indicates not detected above report detection limit

J indicates estimated value

NA = Not Analyzed

NS = No Standard

FD = Field Duplicate

% = percent

TPH = Total Petroleum Hydrocarbons

# TABLE 3 GROUNDWATER ANALYTICAL RESULTS NAVAL EXCHANGE STATION NAVSTA NEWPORT NOVEMBER 2013

Chemical Name	RIDEM GB Groundwater Criteria	Unit	<b>RS-MW1</b> 11/20/2013	<b>RS-MW2</b> 11/20/2013	<b>RS-MW3</b> 11/20/2013	<b>RS-MW4</b> 11/21/2013	<b>RS-MW5</b> 11/21/2013
BENZENE	140	ug/L	< 0.50 U				
ETHYLBENZENE	1600	ug/L	< 0.50 U				
M- AND P-XYLENE	NS	ug/L	< 1.0 U				
METHYL TERT-BUTYL ETHER	5000	ug/L	< 0.50 UJ	3.3 J	< 0.50 UJ	< 0.50 UJ	0.72 J
O-XYLENE	NS	ug/L	< 0.50 U				
TOLUENE	1700	ug/L	< 0.50 U				
XYLENES, TOTAL	NS	ug/L	< 1.5 U				

#### Notes:

Red and Bold font indicates exceedance of RIDEM Groundwater GB criteria

U indicates not detected above report detection limit

J indicates estimate value

ug/L = micrograms per liter

FD = Field Duplicate

NS = No Standard

TB = Trip Blank

# TABLE 3 GROUNDWATER ANALYTICAL RESULTS NAVAL EXCHANGE STATION NAVSTA NEWPORT NOVEMBER 2013

Chemical Name	RIDEM GB Groundwater Criteria	Unit	<b>RS-MW5-FD</b> 11/21/2013	<b>RS-MW6</b> 11/20/2013	<b>RS-MW7</b> 11/20/2013	<b>RS-MW8</b> 11/20/2013	<b>TB-GW</b> 11/8/2013
BENZENE	140	ug/L	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
ETHYLBENZENE	1600	ug/L	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
M- AND P-XYLENE	NS	ug/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
METHYL TERT-BUTYL ETHER	5000	ug/L	0.60 J	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 U
O-XYLENE	NS	ug/L	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TOLUENE	1700	ug/L	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
XYLENES, TOTAL	NS	ug/L	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U

#### Notes:

Red and Bold font indicates exceedance of RIDEM Groundwater

U indicates not detected above report detection limit

J indicates estimate value

ug/L = micrograms per liter

FD = Field Duplicate

NS = No Standard

TB = Trip Blank

#### 8.0 NATURE AND EXTENT OF CONTAMINATION

The contaminants detected at the Site are petroleum-related compounds. The potential sources and the nature and extent of contamination are discussed in this section.

## 8.1 Potential Source(s) of Release

The source of release is believed to be the current and historic use of the Site as a petroleum distribution facility and/or the historic fuel oil storage in the vicinity of the southwest canopy footing.

## 8.2 Light Non-Aqueous Phase Liquid (LNAPL)

No LNAPL was observed by Resolution during the soil boring or monitoring well development/sampling.

## 8.3 Soil Impacts

Soil impacts were detected in one location (RS-MW5) for TPH C10-C36 Bunker Fuel in excess of RDEC standards. There were no soil samples in excess of ICDEC standards. TPH C10-C36 Bunker Fuel was detected in soil collected from all 8 borings; however, concentrations from borings MW-4, MW-7 and MW-8 were estimated values below 10 mg/kg. The concentration of TPH C10-C36 Bunker Fuel was 950 mg/kg soil sample RS-MW5, the sampling location closest to the dispenser pad and previously noted visual contamination. This result exceeded the RDEC standard of 500 mg/kg, but not the ICDEC standard of 2,500 mg/kg.

## 8.4 Groundwater Impacts

As discussed in section 7.3, groundwater collected from each monitoring well was analyzed for VOCs (BTEX and MTBE). According to laboratory analytical results, concentrations of VOCs were not detected above laboratory method detection limits in any sample, with the exception of MTBE detected at low concentrations in groundwater samples collected from MW-2 and MW-5. These concentrations were below the RIDEM GB Groundwater Objectives.

#### 9.0 MIGRATION PATHWAYS AND EXPOSURE POTENTIAL

## 9.1 Migration Pathways

The primary migration pathway for TPH and VOCs released to the subsurface is via groundwater migration, which is estimated to be in a northwesterly direction. Subsurface utilities identified beneath the Site were evaluated as potential migration pathways for contaminants. Stormwater drainage pipes connecting catch basins, a rainwater collection system from the roof of the canopy, sanitary sewer lines and underground electric lines all cross the parking lot near the known impacted area. According to utility plans provided by the Navy, the stormwater and sanitary sewer lines are located between 4 and 7 feet below grade, which would intercept the groundwater tables and be considered potential pathways. However, concentrations of VOCs were all non-detect or below applicable GB groundwater objectives in all Site wells. No other underground utilities were identified as potential preferential pathways for migration of dissolved phase constituents.

## 9.2 Vapor Migration

Soil samples were screened in the field with a PID during well installation every 2 feet. Only one soil sample exhibited an elevated PID reading. The soil sample collected from 5 to 7 feet in boring RS-MW5 exhibited a PID reading of 116 parts per million (ppm). This measurement was consistent with the analytical results of TPH in soil at that location. The service station and adjacent garage facility are located in close proximity to this area of impacts; however, the building is upgradient and PID readings are minor. Furthermore, no detectable concentrations of VOCs were found in soil and only minor concentrations of MTBE were detected in groundwater collected from MW-5 and MW-2, which are downgradient of the Site building. Therefore, vapor migration to buildings in the vicinity of this investigation is unlikely. No further vapor migration assessment is warranted.

#### 9.3 Potential Receptors

Based on the contaminant concentrations, distribution, and potential migration pathways, the following potential receptors are considered in this Site evaluation.

 Potential contact with soil in the vicinity of RS-MW5 by construction and/or utility workers who could potentially perform work at the Site.

## 9.4 Exposure Potential

The determination of the potential for exposure to oil and/or hazardous materials (OHM) from the Site is based on the results obtained from work performed for this SIR. No known exposures have occurred. Potential exposures may include the following:

<u>Human Health</u>: The Site is an active service station in an urban environment. Exposure could include inhalation or dermal contact by construction or utility workers performing activities on the Site.

<u>Environmental</u>: The Site investigation area is located approximately 200 feet southeast of Narragansett Bay. No soil or groundwater impacts were observed in the two borings/wells installed between the Site and Narragansett bay; therefore, based on the hydrogeological characteristics and current contaminant migration, there is no environmental exposure potential relative to current Site impacts.

## 10.0 DEVIATIONS FROM THE WORK PLAN

There were no deviations from the original work plan. All wells were installed in the general vicinity planned and all soil and groundwater samples were collected and analyzed for the planned constituents.

#### 11.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in this SIR, Resolution and NAVFAC present the following summary and opinions.

## 11.1 Summary of Findings

- The NEX Service Station is owned by the U.S. Navy and is located in a secure section of the Newport Naval Base in Newport, Rhode Island. The service station is located on the southeastern corner of Whipple Street and Avenue J. There are currently three 20,000-gallon gasoline USTs and one 2,500-gallon fuel oil UST located at the Site, installed in 1991.
- On April 20, 2013, the contractor replacing the dispenser canopy observed petroleum sheen on the groundwater in one of the Site excavations.
- Resolution Consultants drilled 8 soil borings which were completed as monitoring wells at the Site to assess the potential for petroleum impacts. One soil sample was collected from each boring and groundwater was subsequently sampled from each monitoring well using low-flow sampling procedures. Analytical results indicated that concentrations of petroleum constituents in soil and groundwater at the Site are below the applicable RIDEM RDEC and ICDEC criteria for soil at all but one sampling location. Soil sample RS-MW5, collected from the location where MW-5 was subsequently installed, revealed TPH C10-C36 Bunker Fuel in excess of RDEC standards, but below ICDEC standards. There were no exceedances of parameters analyzed in groundwater in any of the wells.
- Potential receptors and human exposure potentials include inhalation or dermal contact by construction or utility workers performing activities in the vicinity of the Site. The Site is located approximately 200 feet south of Narragansett Bay, therefore potential environmental receptors do exist. However, based on the hydrogeological characteristics and current contaminant concentrations, these areas are not anticipated to be impacted by Site contaminants.

#### 11.2 Recommendations

Based on current contaminant concentrations and exposure potentials, no further assessment
or evaluation of remedial alternatives is warranted. Site conditions are below ICDEC
standards, which is consistent with the current industrial site use and foreseeable future site
use.

## 12.0 REPORT CERTIFICATIONS

Pursuant to RIDEM's UST Regulations (RIDEM, 2011, Section 12.09(B)(12)), the following signatures certify that the information contained in this Site Investigation Report is a complete and accurate representation of the Site and the release and that this report contains all known facts surrounding the release, to the best of their knowledge.

Review Signature:	Maon D. Aullette	01/27/14
,	Naomi Ouellette, CTO Manager Resolution Consultants	Date
Approval Signature:	Mart Caff	01/27/14
	Mark D. Kauffman, PE Resolution Consultants	Date
Other Approval Signature:	Chris Muray	01/27/14
	Christopher Murray, Navy RPM/ US Navy	Date

Revision No: 2 Revision Date: 02/18/2014

#### 13.0 REFERENCES

Resolution Consultants. 2013. Work Plan, Soil and Groundwater Investigation, Naval Exchange Service Station. Naval Station (NAVSTA) Newport, Rhode Island. October 22, 2013.

Rhode Island Department of Environmental Management Groundwater Division, Rules and Regulations for Groundwater Quality, Groundwater Classification Map, March 2005.

Rhode Island Department of Environmental Management Groundwater Division, Rules and Regulations for Groundwater Quality, Groundwater Classification & Wellhead Protection Area Map, March 2005.

Rhode Island Department of Environmental Management Water Quality, private well completion logs, March 25, 2008.

City of Newport, retrieved from www.cityofnewport.com, zoning map, 2013.

United States Geological Survey, retrieved from http://mrdata.usgs.gov/sgmc/ri.html, Rhode Island geology, May 2013.

Appendix A

**RIDEM SIR Request Letter** 



# RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

May 24, 2013

Mr. David D. Dorocz Environmental Division Director Naval Station Newport 1 Simonpietri Drive Newport, RI 02841

Re:

Naval Exchange Service Station, Buildings 1285 and 1286 CO, Newport RI

UST Facility ID: 03251; LUST Case No.: LS-2295

Dear Mr. Dorocz:

On April 20, 2013, a construction project at the Naval Exchange Service Station was underway to replace the existing canopy with a new larger canopy, at which time evidence of a petroleum release was discovered and reported to the Department of Environmental Management. As such, "Leak and Release Reporting" was required to be submitted in accordance with corresponding Rule 12.04 of RIDEM's <u>Rules and Regulations For Underground Storage Facilities Used For Petroleum Products and Hazardous Materials</u>, or <u>UST Regulations</u> (effective April 2011).

The UST Management Program of the Office of Waste Management has reviewed the "Suspected Release at NEX Gas Station – Fac ID 03251" report received on May 23, 2013 via electronic mail for the above-referenced facility. Based on the results of this report, a site investigation must be conducted and a Site Investigation Report ("SIR") must be submitted to the Department in accordance with Rules 12.08 and 12.09 of the <u>UST Regulations</u> within sixty (60) days (07/24/2013) or in accordance with an approved alternate schedule.

The <u>UST Regulations</u> require that all work be performed by a qualified environmental consultant. Rule 12.09(B) (9) of the <u>UST Regulations</u> requires that a minimum of three monitoring wells be installed to define the nature and extent of groundwater contamination. It is strongly suggested that a site plan with proposed locations be submitted to the Department prior to initiation of the site investigation. The Department may require "the collection and submission of additional information where a SIR is found to be incomplete or deficient or does not provide sufficient data to identify the extent of the contamination plume" (Rule 12.10 of the <u>UST Regulations</u>). Upon review of the complete SIR, the Department may require the development of a Corrective Action Plan.

If you have any questions regarding this matter, please contact the undersigned at (401) 222-2797 extension 7121.

Sincerely,

Sofia M. Kaczor, CPG

Principal Environmental Scientist

ofia M. Koczo

UST Management Program / Office of Waste Management

Cc: Kevin Gillen, OWM / RIDEM

# Appendix B

**EDR Database Report and Historical Documents** 

### **NEX Service Station**

85-2 WHIPPLE ST Newport, RI 02841

Inquiry Number: 3723834.3

September 11, 2013

# **Certified Sanborn® Map Report**



# **Certified Sanborn® Map Report**

9/11/13

Site Name: Client Name:

NEX Service Station AECOM 85-2 WHIPPLE ST 95 State Road

Newport, RI 02841 Sagamore Beach, MA 02562

EDR Inquiry # 3723834.3 Contact: Naomi Ouellette



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by AECOM were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

#### Certified Sanborn Results:

Site Name: NEX Service Station
Address: 85-2 WHIPPLE ST
City, State, Zip: Newport, RI 02841

**Cross Street:** 

**P.O.** # 60307272

**Project:** NEX Service Station **Certification #** DFEF-4699-A517

#### Maps Provided:

1921



Sanborn® Library search results Certification # DFEF-4699-A517

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#### Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



#### 1921 Source Sheets





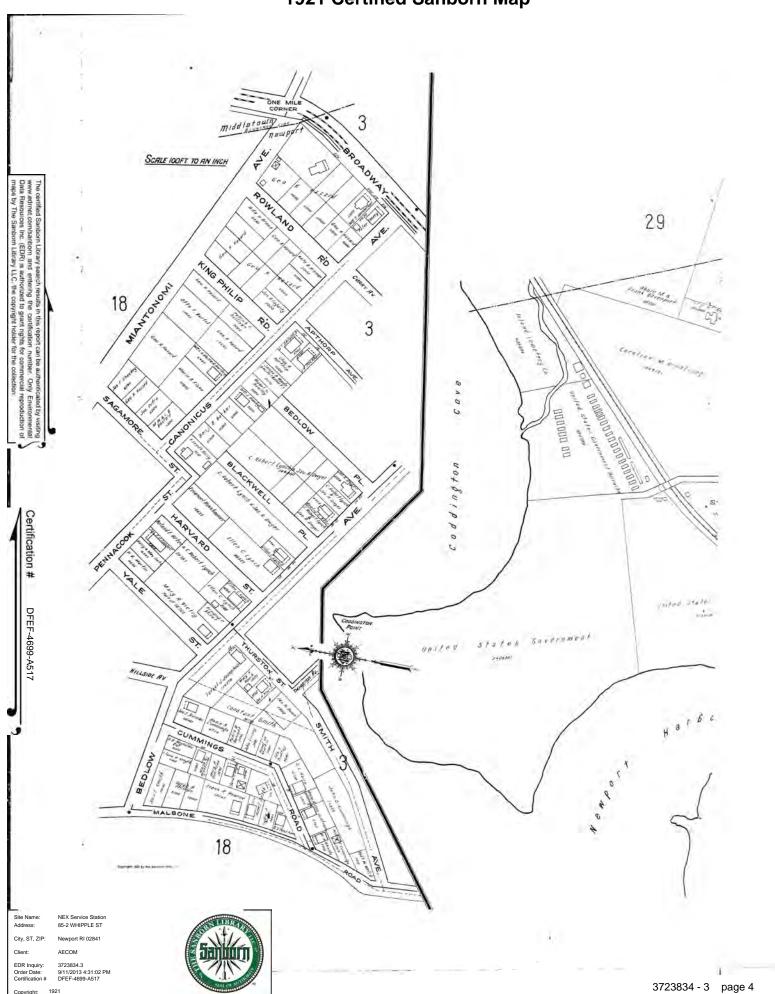


Volume 1, Sheet 18

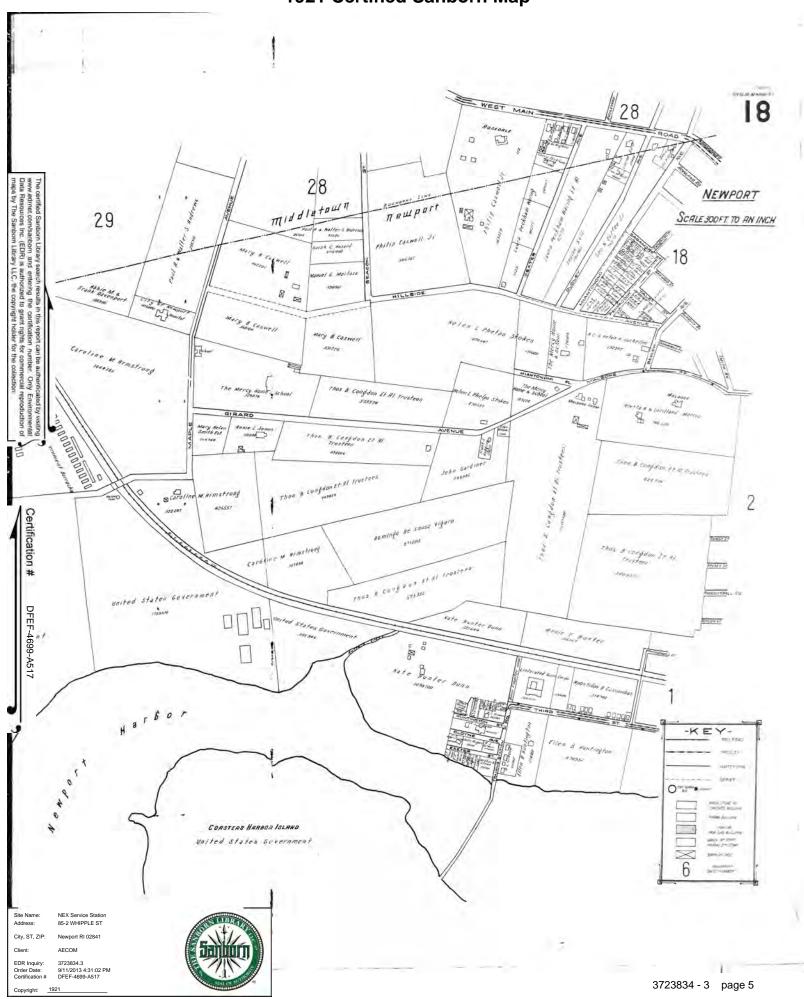
Volume 1, Sheet 18

Volume 1, Sheet 29

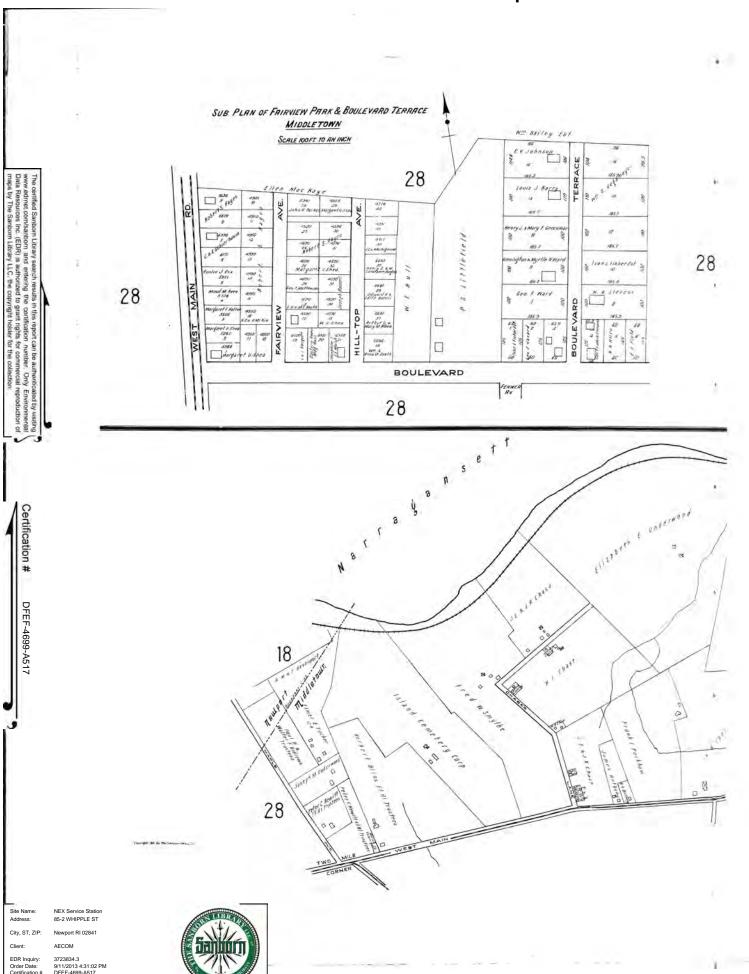
# 1921 Certified Sanborn Map



# 1921 Certified Sanborn Map



# 1921 Certified Sanborn Map



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# 1921 Certified Sanborn Map · or first suit The certified Sanborn Library search results in this report can be authentic www.admet.com/sanborn and entering the certification number. Only Data Resources Inc. (EDR) is authorized to grant rights for commercial in maps by The Sanborn Library LLC, the copyright holder for the collection City, ST, ZIP: AFCOM EDR Inquiry This Certified Sanborn Map combines the following sheets. Outlined areas indicate map sheets within the collection. 0 Feet 300 600 150 Volume 1, Sheet 18 Volume 1, Sheet 18 Volume 1, Sheet 29 29

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### **NEX Service Station**

85-2 WHIPPLE ST Newport, RI 02841

Inquiry Number: 3723834.5

September 12, 2013

# The EDR Aerial Photo Decade Package



# **EDR Aerial Photo Decade Package**

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## **Date EDR Searched Historical Sources:**

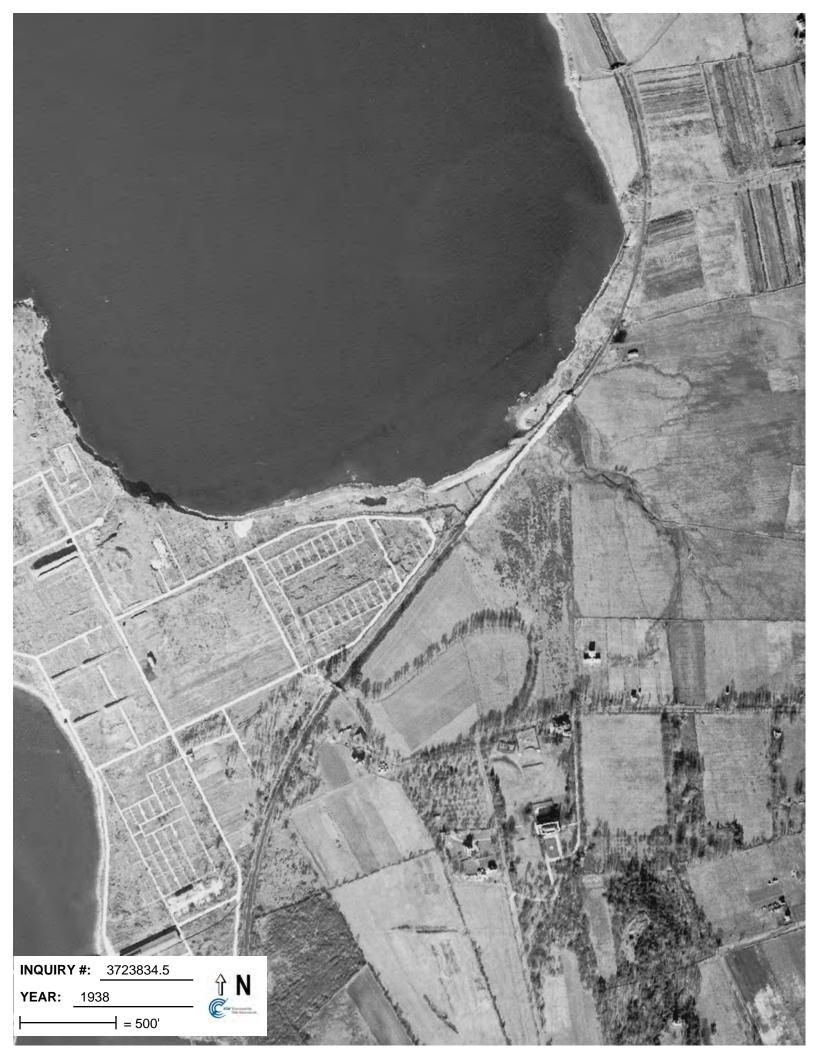
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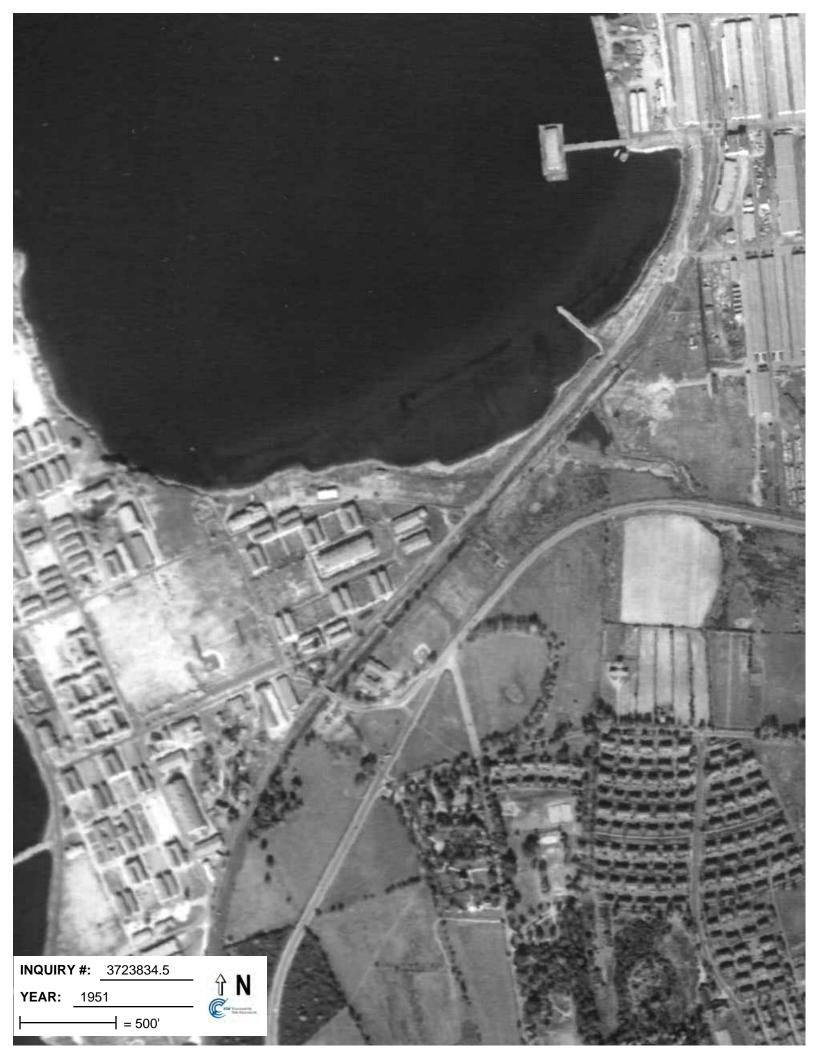
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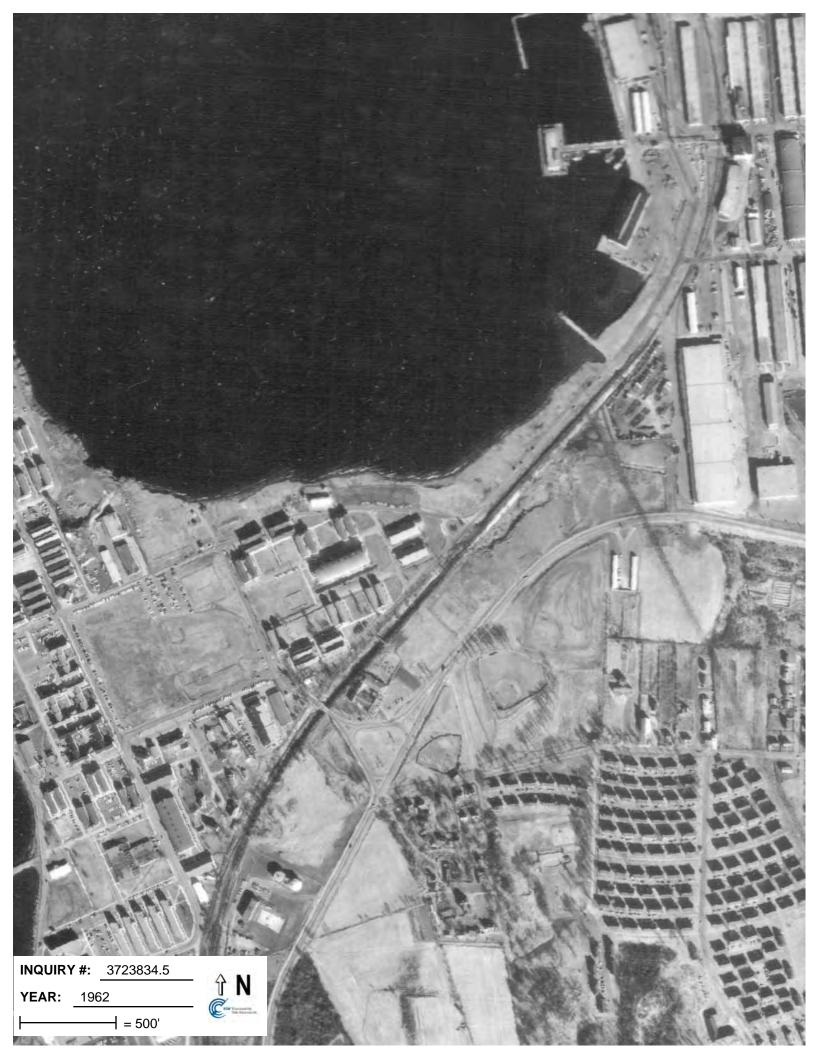
85-2 WHIPPLE ST

Newport, RI 02841

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
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1951	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: October 20, 1951	EDR
1962	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: April 27, 1962	EDR
1969	Aerial Photograph. Scale: 1"=1000'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: September 13, 1969	EDR
1970	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: March 10, 1970	EDR
1981	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: April 13, 1981	EDR
1995	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/DOQQ - acquisition dates: March 29, 1995	EDR
1996	Aerial Photograph. Scale: 1"=750'	Panel #: 41071-E3, Prudence Island, RI;/Flight Date: May 07, 1996	EDR
2005	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Year: 2005	EDR
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2010	Aerial Photograph. Scale: 1"=500'	Panel #: 41071-E3, Prudence Island, RI;/Flight Year: 2010	EDR
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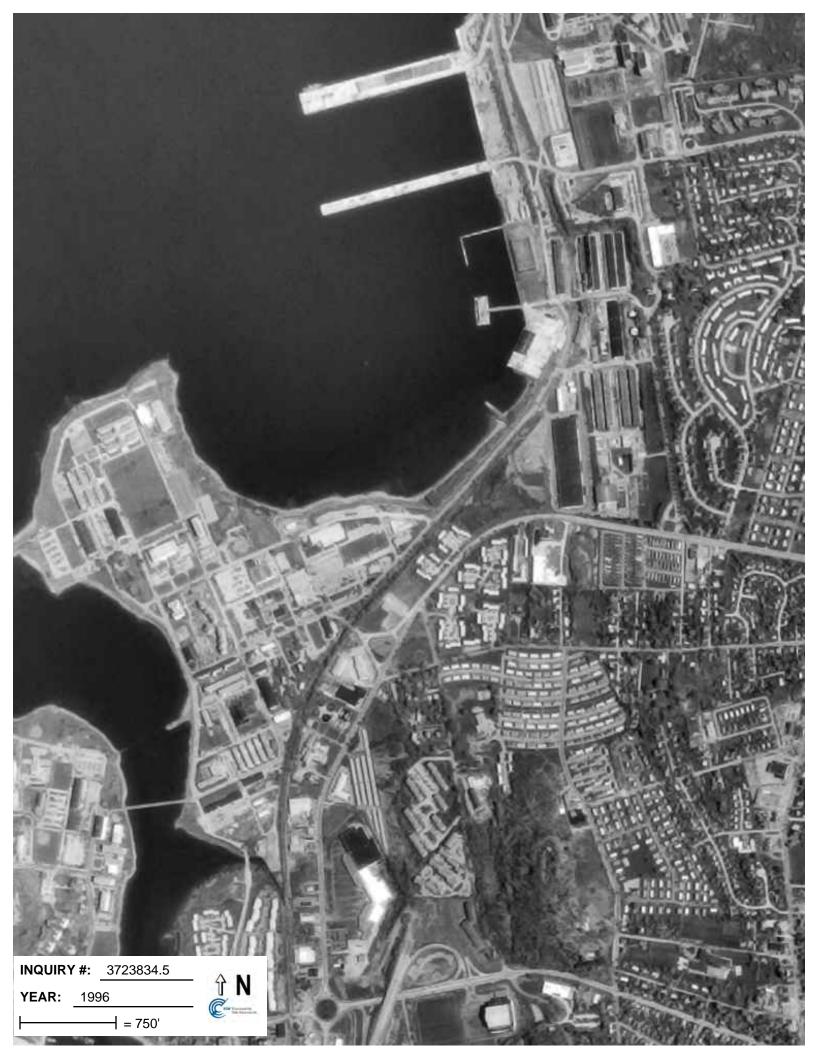






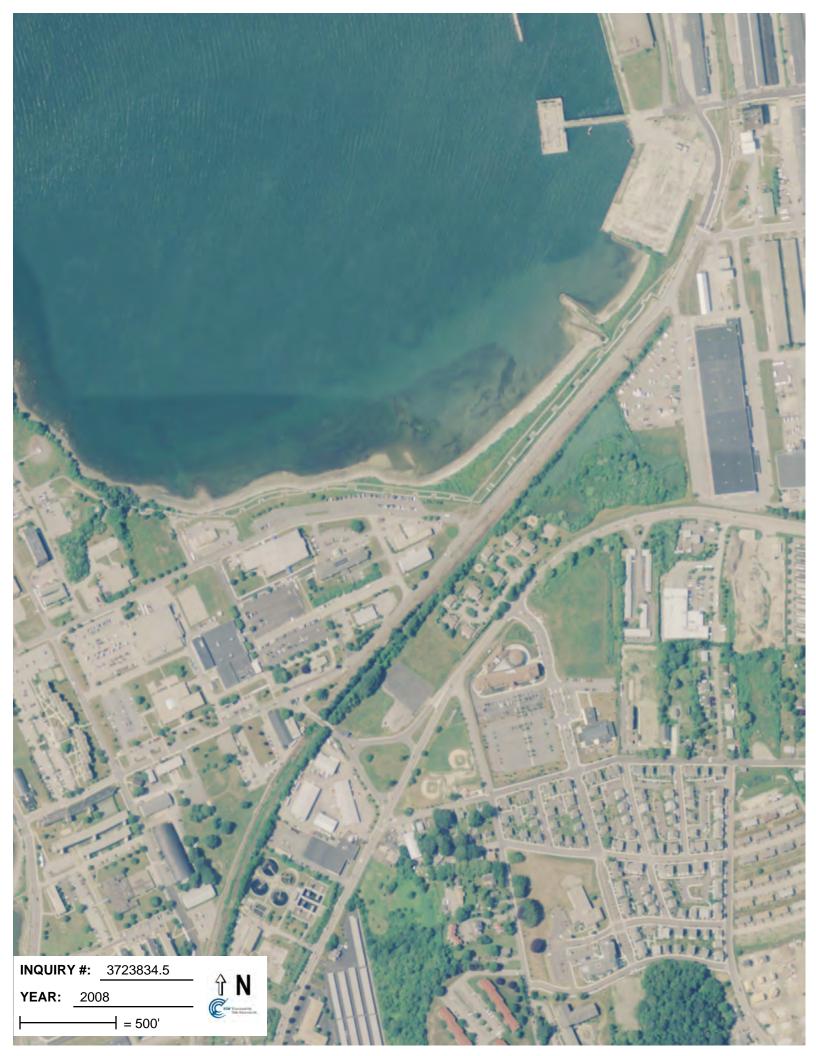


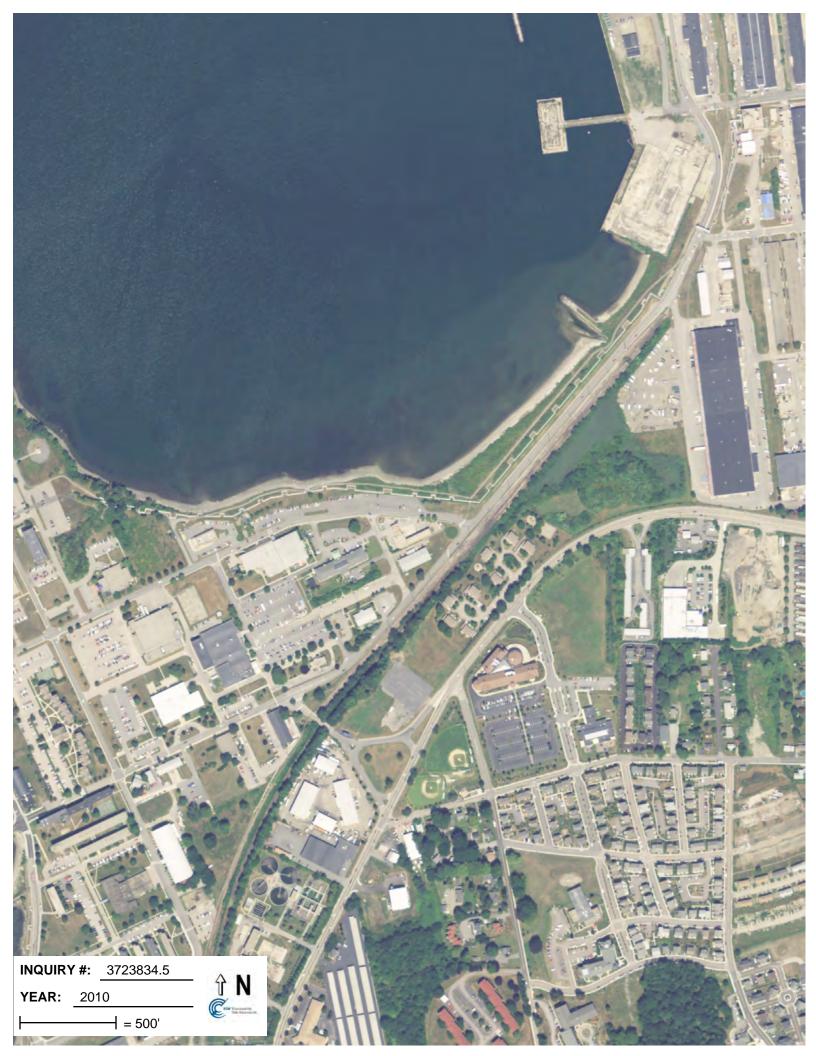












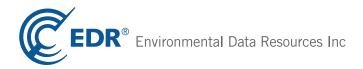


**NEX Service Station** 85-2 WHIPPLE ST Newport, RI 02841

Inquiry Number: 3723834.2s

September 11, 2013

# The EDR Radius Map™ Report with GeoCheck®



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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

85-2 WHIPPLE ST NEWPORT, RI 02841

#### **COORDINATES**

Latitude (North): 41.5192000 - 41° 31' 9.12" Longitude (West): 71.3156000 - 71° 18' 56.16"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 306779.0 UTM Y (Meters): 4598772.0

Elevation: 30 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 41071-E3 PRUDENCE ISLAND, RI

Most Recent Revision: 2000

#### **AERIAL PHOTOGRAPHY IN THIS REPORT**

Photo Year: 2012 Source: USDA

#### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

#### **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

#### STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list	
NPL	National Priority List

Proposed NPL Proposed National Priority List Sites NPL LIENS Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP...... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS...... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF...... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators

RCRA-CESQG...... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL..... Sites with Institutional Controls

LUCIS\_\_\_\_\_Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

RI SWF/LF....... Solid Waste Management Facilities RI LCP...... Landfill Closure Program Sites in RI

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

RI AST..... Aboveground Storage Tanks

INDIAN UST...... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

#### State and tribal Brownfields sites

RI BROWNFIELDS..... Brownfields Site List

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory

INDIAN ODI...... Report on the Status of Open Dumps on Indian Lands

#### Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

#### Local Land Records

LIENS 2..... CERCLA Lien Information

#### Records of Emergency Release Reports

HMIRS\_\_\_\_\_ Hazardous Materials Information Reporting System RI SPILLS\_\_\_\_\_ Oil & Hazardous Material Response Log/Spill Report

RI SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

CONSENT...... Superfund (CERCLA) Consent Decrees

TRIS...... Toxic Chemical Release Inventory System

TSCA...... Toxic Substances Control Act

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS...... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS...... Integrated Compliance Information System

RAATS\_\_\_\_\_\_RCRA Administrative Action Tracking System

RMP..... Risk Management Plans

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

RI Financial Assurance Information US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

US AIRS..... Aerometric Information Retrieval System Facility Subsystem

LEAD SMELTERS..... Lead Smelter Sites

PCB TRANSFORMER....... PCB Transformer Registration Database COAL ASH DOE....... Steam-Electric Plant Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

#### **EDR HIGH RISK HISTORICAL RECORDS**

#### **EDR Exclusive Records**

EDR MGP..... EDR Proprietary Manufactured Gas Plants EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

#### **SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 04/26/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DOD/NETC/CODDINGTON RUBBLE FIL	FAREWELL AVENU	E & CONRÆNE 1/8 - 1/4 (0.167 mi.)	2	10

#### Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/18/2013 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
R I PUBLIC TRANSIT AUTHORITY	350 CODDINGTON HWY	SSE 0 - 1/8 (0.122 mi.)	1	7
COMMUNITY COLLEGE OF RI NEWPOR	1 JOHN H CHAFFEE BLVD	SE 1/8 - 1/4 (0.171 mi.)	A3	12

#### State- and tribal - equivalent CERCLIS

RI SHWS: This list includes sites that have been investigated under the Federal CERCLIS program ("SFA" sites) as well as sites that have notified under the state program or have been investigated for hazardous substances ("HWM" sites).

A review of the RI SHWS list, as provided by EDR, and dated 08/02/2013 has revealed that there are 17 RI SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TONOMY HILL REVITALIZATION - P Facility Status: Active	MAPLE AVENUE & GIRARD A	SSE 1/8 - 1/4 (0.239 mi.)	B5	16
<b>TONOMY HILL REVITALIZATION - P</b> Facility Status: Active Facility Status: Inactive	MAPLE & GIRARD AVENUES	SSE 1/8 - 1/4 (0.239 mi.)	B6	17
GETTY SERVICE STATION - #68002 Facility Status: Active	10 CODDINGTON HWY	E 1/2 - 1 (0.510 mi.)	12	20
MOBIL STATION Facility Status: Inactive	163 J. T. CONNELL HIGHW	SSW 1/2 - 1 (0.541 mi.)	13	21
PARK HOLM - HOUSING AUTHORITY Facility Status: Active	120 HILLSIDE AVENUE	SSE 1/2 - 1 (0.737 mi.)	15	22
WEST MARINE INC Facility Status: Inactive	379 W MAIN RD	ESE 1/2 - 1 (0.750 mi.)	16	22
MARRIOTT RESIDENCE INN Facility Status: Active Facility Status: Inactive	325 WEST MAIN ROAD	ESE 1/2 - 1 (0.762 mi.)	D17	25
NEWPORT CITY DUMP Facility Status: Inactive	ADMIRAL KALBFUS ROAD	S 1/2 - 1 (0.767 mi.)	E18	26
FIRST BRISTOL CORP Facility Status: Inactive	317 WEST MAIN ROAD	ESE 1/2 - 1 (0.768 mi.)	D19	26

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JAI ALAI Facility Status: Active	150 ADMIRAL KALBFUS ROA	S 1/2 - 1 (0.787 mi.)	E20	26
ROLLING GREEN VILLAGE APARTMEN Facility Status: Active	105 ADMIRAL KAUFBUS ROA	SSE 1/2 - 1 (0.803 mi.)	21	27
FREITAS PROPERTY Facility Status: Active	741 WEST MAIN ROAD	ENE 1/2 - 1 (0.866 mi.)	F22	27
SULLIVAN SCHOOL Facility Status: Active	35 DEXTER AVENUE	SE 1/2 - 1 (0.878 mi.)	23	27
TONI MARINE SALES AND SERVICE Facility Status: Active	759 WEST MAIN ROAD	ENE 1/2 - 1 (0.885 mi.)	F24	28
AQUIDNECK GROUP Facility Status: Active	99 EAST MAIN ROAD	E 1/2 - 1 (0.941 mi.)	25	28
Lower Elevation	Address	Direction / Distance	Map ID	Page
R.K. FESTIVAL SHOPPES Facility Status: Active	199 CONNELL HIGHWAY	SSW 1/4 - 1/2 (0.485 mi.)	11	19
U - HAUL Facility Status: Inactive	111 J.T. CONNELL HIGHWA	S 1/2 - 1 (0.610 mi.)	14	21

#### State and tribal leaking storage tank lists

RI LUST: The LUST Case List is a summary of UST Facilities in RI with leaking USTs, which includes information on the date of release discovery and the status of the LUST Case (active, soil removal only, or inactive).

A review of the RI LUST list, as provided by EDR, and dated 05/01/2013 has revealed that there are 3 RI LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HILL MART Facility Status: Soil Removal Only; No	295 CONNELL HIGHWAY Further Action Required	S 1/4 - 1/2 (0.290 mi.)	C8	18
BELL ATLANTIC Facility Status: Inactive; Investigation/	286 CONNELL HIGHWAY Remed. Complete,No Further Actio	,	C9	18
FESTIVAL FIELD APARTMENTS Facility Status: Inactive: Investigation/	90 GIRARD AVE Remed. Complete.No Further Actio	<b>SSE 1/4 - 1/2 (0.474 mi.)</b> on Required	10	18

#### State and tribal institutional control / engineering control registries

RI AUL: This list was developed by RIDEM for use as a general reference and are not meant to be legally authoritative source for the location of hazardous materials, nor for the status, condition or permissible use of a site.

A review of the RI AUL list, as provided by EDR, and dated 08/09/2013 has revealed that there are 2

RI AUL sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TONOMY HILL REVITALIZATION - P	MAPLE & GIRARD AVENUES	SSE 1/8 - 1/4 (0.239 mi.)	B6	17
TONOMY HILL REVITALIZATION - P	MAPLE AND GIRARD AVENU	ESSE 1/8 - 1/4 (0.239 mi.)	B7	17

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Other Ascertainable Records

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEWPORT NAVAL EDUCATIONAL AND		0 - 1/8 (0.000 mi.)	0	7

RI MANIFEST: Hazardous waste manifest information

A review of the RI MANIFEST list, as provided by EDR, and dated 12/31/2012 has revealed that there are 2 RI MANIFEST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
R I PUBLIC TRANSIT AUTHORITY	350 CODDINGTON HWY	SSE 0 - 1/8 (0.122 mi.)	1	7
COMMUNITY COLLEGE OF RI NEWPOR	1 JOHN H CHAFFEE BLVD	SE 1/8 - 1/4 (0.171 mi.)	A3	12

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 12/31/2012 has revealed that there is 1 NY MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
COMMUNITY COLLEGE OF RI NEWPOR	1 JOHN H CHAFFEE BLVD	SE 1/8 - 1/4 (0.171 mi.)	A4	15

### **EXECUTIVE SUMMARY**

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

Site Name

NAVAL STATION NEWPORT PUBLIC WORKS AARDVARK ANTIQUES

NATIONAL GRID PROPERTY - NEWPORT

HARRISON AVENUE DUMP

**ROSE ISLAND** 

NEWPORT VOCATIONAL SCHOOL

NAS FIREFIGHTING AREA NEWPORT BIODEISEL

DEPT. OF THE NAVY-BUILDING #68

ExxonMobil Oil Corp 01-235 Colbea Enterprises, LLC **BOWLER REALTY** 

NEW ENGLAND TELEPHONE CO

SIPCO SERVICES R I BACKPANEL

US NAVAL STATION-NEWPORT

US NAVY SUPERVISOR OF SHIPBUILDING

**NYNEX** 

SUNOCO SERVICE STATION

FINDS, MANIFEST, MANIFEST, RCRA-NLR, RAATS, AIRS (AFS)

CORRACTS,RCRA-TSDF,MANIFEST,MANIFEST,MANIFEST,AIRS

AUL,HWS

**HWS** 

CERCLIS-NFRAP, HWS

CERCLIS-NFRAP, HWS

**HWS HWS** AST **AST** 

FINDS, MANIFEST, MANIFEST, RCRA-NLR

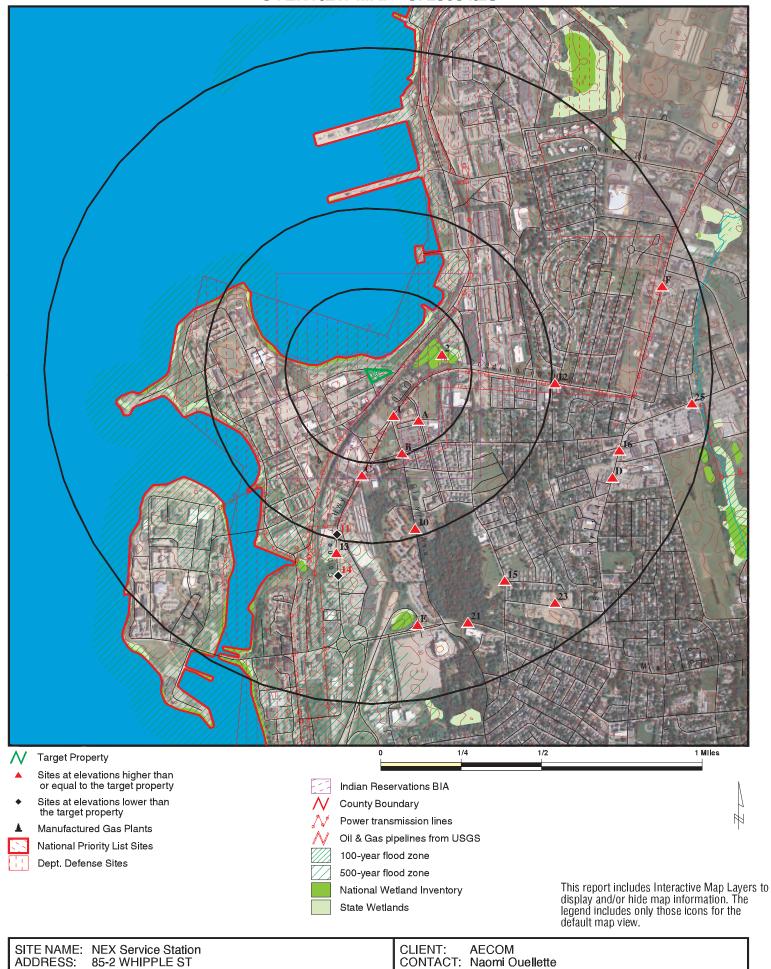
FINDS,RCRA-NLR,MANIFEST FINDS,RCRA-NLR,MANIFEST

RCRA-SQG, MANIFEST

**MANIFEST MANIFEST** MANIFEST FINDS,RCRA-NLR

FINDS,RCRA-NLR FINDS,RCRA-NLR

### **OVERVIEW MAP - 3723834.2s**



Newport RI 02841

41.5192 / -71.3156

LAT/LONG:

September 11, 2013 12:57 pm

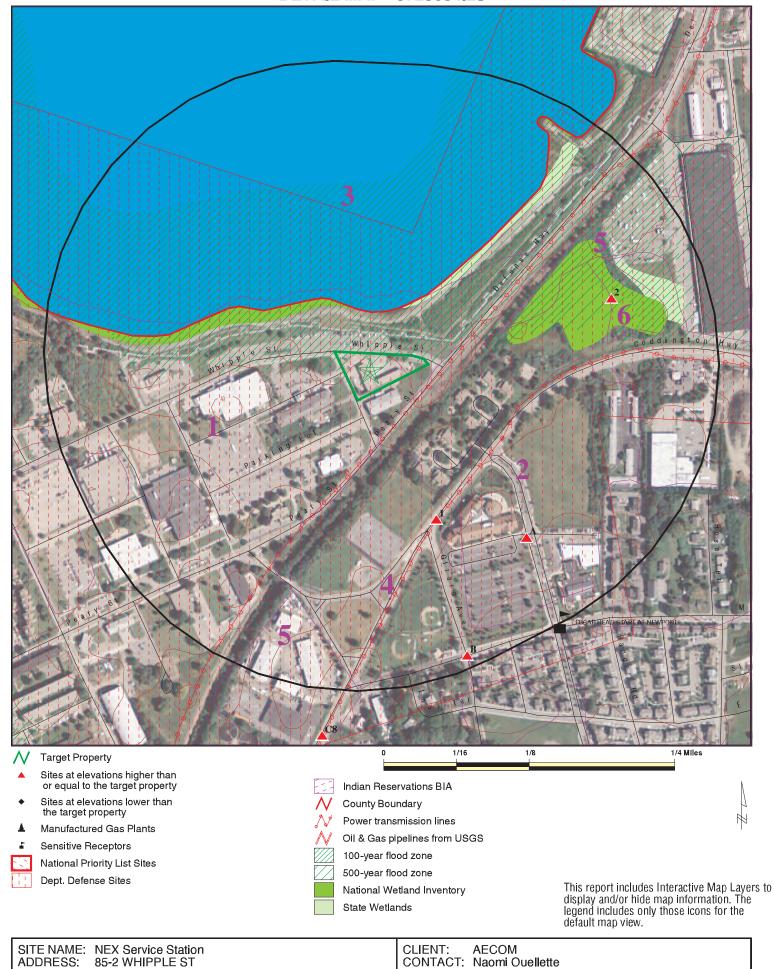
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3723834.2s

INQUIRY#:

DATE:

### **DETAIL MAP - 3723834.2s**



Newport RI 02841

41.5192 / -71.3156

LAT/LONG:

September 11, 2013 1:00 pm

Copyright © 2013 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

3723834.2s

INQUIRY #:

DATE:

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY	0.500 0.500		0 0	1 0	0 0	NR NR	NR NR	1 0
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR		acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 1 0	0 1 0	NR NR NR	NR NR NR	NR NR NR	0 2 0
Federal institutional con engineering controls re								
US ENG CONTROLS US INST CONTROL LUCIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS	3						
RI SHWS	1.000		0	2	1	14	NR	17
State and tribal landfill and/or solid waste disposal site lists								
RI SWF/LF RI LCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal leaking storage tank lists								
RI LUST INDIAN LUST	0.500 0.500		0 0	0 0	3 0	NR NR	NR NR	3 0
State and tribal registered storage tank lists								
RI UST	0.250		0	0	NR	NR	NR	0

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RI AST INDIAN UST FEMA UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
State and tribal institution control / engineering con								
RI AUL	0.500		0	2	0	NR	NR	2
State and tribal voluntary	cleanup sites	5						
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfie	lds sites							
RI BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	olid							
DEBRIS REGION 9 ODI INDIAN ODI	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Local Lists of Hazardous Contaminated Sites	waste /		-	-	-			-
US CDL RI CDL US HIST CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS RI SPILLS RI SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Records								
RCRA NonGen / NLR DOT OPS DOD FUDS CONSENT ROD UMTRA US MINES TRIS TSCA	0.250 TP 1.000 1.000 1.000 1.000 0.500 0.250 TP		0 NR 1 0 0 0 0 0 NR NR	0 NR 0 0 0 0 0 0 NR NR	NR NR 0 0 0 0 NR NR NR	NR NR 0 0 0 NR NR NR NR	NR NR NR NR NR NR NR NR	0 0 1 0 0 0 0 0

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	Ö
SSTS	TP		NR	NR	NR	NR	NR	Õ
ICIS	TP		NR	NR	NR	NR	NR	Ö
PADS	TP		NR	NR	NR	NR	NR	Ö
MLTS	TP		NR	NR	NR	NR	NR	Ō
RADINFO	TP		NR	NR	NR	NR	NR	Ō
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RI MANIFEST	0.250		1	1	NR	NR	NR	2
NY MANIFEST	0.250		0	1	NR	NR	NR	1
RI DRYCLEANERS	0.250		0	0	NR	NR	NR	0
RI NPDES	TP		NR	NR	NR	NR	NR	0
RI AIRS	TP		NR	NR	NR	NR	NR	0
RI LEAD	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
RI Financial Assurance	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICA	L RECORDS							
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		Ŏ	ő	NR	NR	NR	ő
EDR US Hist Cleaners	0.250		Õ	Ö	NR	NR	NR	Õ
2 2 1 1121 21211100			-	-				-

### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

DOD NEWPORT NAVAL EDUCATIONAL AND TRAINING CENTER DOD CUSA117529
Region N/A

NEWPORT NAVAL EDUCATIONAL (County), RI

< 1/8 1 ft.

DOD:

Feature 1: Navy DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported

Name 1: Newport Naval Educational and Training Center

Name 2: Not reported Name 3: Not reported

State: RI DOD Site: Yes

Tile name: RINEWPORT

1 R I PUBLIC TRANSIT AUTHORITY RCRA-SQG 1001081319
SSE 350 CODDINGTON HWY FINDS RIR000013078

< 1/8 MIDDLETOWN, RI 02842 0.122 mi.

644 ft.

Relative: RCRA-SQG:

Higher Date form received by agency: 04/01/2010

Facility name: R I PUBLIC TRANSIT AUTHORITY

Actual: Facility address: 350 CODDINGTON HWY 50 ft. MIDDLETOWN, RI 02842

EPA ID: RIR000013078

Mailing address: RIR000013078

MELROSE STREET

PROVIDENCE, RI 02907

Contact: THOMAS L CLUPNY

Contact address: Not reported
Not reported
Contact country: US

Contact telephone: (401) 784-9500 Telephone ext.: 147

Contact email: TCLUPNY@RIPTA.COM

EPA Region: 01

Classification: Small Small Quantity Generator

Description: Handler: generates more than 100 and less than 1000 kg of hazardous

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: RHODE ISLAND PUBLIC TRANSIT AUTHORITY

Owner/operator address: 265 MELROSE STREET PROVIDENCE, RI 02907

Owner/operator country: US

Owner/operator telephone:
Legal status:
Owner/Operator Type:
Owner/Op start date:
Owner/Op end date:

Not reported
Other
Owner
Ouner

Owner/operator name: RI PUBLIC TRANSTI AUTH

**EDR ID Number** 

**RI MANIFEST** 

Direction Distance Elevation

ion Site Database(s) EPA ID Number

### R I PUBLIC TRANSIT AUTHORITY (Continued)

1001081319

**EDR ID Number** 

Owner/operator address: 265 MELROSE ST

PROVIDENCE, RI 02907

Owner/operator country: Not reported
Owner/operator telephone: (401) 784-9578

Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: RHODE ISLAND PUBLIC TRANSIT AUTHORITY

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: 01/13/1993
Owner/Op end date: Not reported

#### Handler Activities Summary:

U.S. importer of hazardous waste: Nο Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

#### Universal Waste Summary:

Waste type: Batteries Accumulated waste on-site: No

Generated waste on-site: Not reported

Waste type: Lamps Accumulated waste on-site: No

Generated waste on-site: Not reported

Waste type: Pesticides Accumulated waste on-site: No

Generated waste on-site: Not reported

Waste type: Thermostats

Accumulated waste on-site: No

Generated waste on-site: Not reported

### Historical Generators:

Date form received by agency: 02/08/2008

Facility name: R I PUBLIC TRANSIT AUTHORITY

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

### R I PUBLIC TRANSIT AUTHORITY (Continued)

1001081319

Site name: RHODE ISLAND PUBLIC TRANSIT AUTHORITY Conditionally Exempt Small Quantity Generator Classification:

Date form received by agency: 09/05/1995

Facility name: R I PUBLIC TRANSIT AUTHORITY Site name: RI PUBLIC TRANSIT AUTH Classification: Not a generator, verified

Hazardous Waste Summary:

Waste code: D001

IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF Waste name:

> LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: R010 WASTE OIL Waste name:

Waste code: R010 Waste name: WASTE OIL

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: R010 WASTE OIL Waste name:

No violations found Violation Status:

FINDS:

Registry ID: 110004932789

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

RI MANIFEST:

**GEN Cert Date:** 3/14/2001 Transporter Receipt Date: Not reported

**Number Of Containers:** 

Direction Distance

Distance Elevation Site EDR ID Number

Database(s) EPA ID Number

### R I PUBLIC TRANSIT AUTHORITY (Continued)

1001081319

CERCLIS 1000141276

RID981066111

FINDS

Not reported Container Type: CR02 Waste Code1: Waste Code2: MA99 Waste Code3: Not reported Comment: Not reported Fee Exempt Code: Not reported TSDF Name: ZECCO INC TSDF ID: MAD052924495 TSDF Date: Not reported Transporter 2 Name: Not reported Transporter 2 ID: Not reported

Manifest Docket Number: MAM722321 Waste Description: COMBUST LIQ

Quantity: 30 WT/Vol Units: G Item Number: 1

Transporter Name: UNITED IND SVS CTD021816889 Transporter EPA ID: **GEN Cert Date:** 3/14/2001 Transporter Recpt Date: Not reported Transporter 2 Recpt Date: Not reported TSDF Recpt Date: Not reported EPA ID: RIR000013078 Transporter 2 ID: Not reported

2 DOD/NETC/CODDINGTON RUBBLE FILL ENE FAREWELL AVENUE & CONRAIL TRACKS

1/8-1/4 NEWPORT, RI

0.167 mi. 884 ft.

 Relative:
 CERCLIS:

 Higher
 Site ID:
 0101373

 EPA ID:
 RID9810

EPA ID: RID981066111

Actual: Facility County: NEWPORT

30 ft. Short Name: DOD/NETC/CODE

Short Name: DOD/NETC/CODDINGTON RUBBL

Congressional District: 01

IFMS ID: Not reported
SMSA Number: Not reported
USGC Hydro Unit: 01090004
Federal Facility: Federal Facility
DMNSN Number: 0.00000
Site Orphan Flag: N

RCRA ID: Not reported USGS Quadrangle: Not reported Site Init By Prog: Not reported NFRAP Flag: Not reported Parent ID: 0101431 RST Code: Not reported

EPA Region: 01

Classification: Not reported Site Settings Code: Not reported

NPL Status: Site is Part of NPL Site

DMNSN Unit Code: Not reported RBRAC Code: Not reported RResp Fed Agency Code: USNV Non NPL Status: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

### DOD/NETC/CODDINGTON RUBBLE FILL (Continued)

1000141276

**EDR ID Number** 

Non NPL Status Date: //
Site Fips Code: 44005
CC Concurrence Date: //

CC Concurrence FY: Not reported Alias EPA ID: Not reported Site FUDS Flag: Not reported

### CERCLIS Site Contact Name(s):

Contact ID: 13004278.00000
Contact Name: Not reported
Contact Tel: Not reported

Contact Title: Site Assessment Manager (SAM)

Contact Email: Not reported

Alias Comments: Not reported

Site Description: NAVY IAS - 3/83. NAVY CS DUE - 7/85. EPA NAVY SITE REVIEW - 8/84. NAVY IAS

RECOMMENDED NO FURTHER ACTION AT THIS SITE. REFUSE CONSISTS OF DEMOLITION

DEBRIS. OWNER: NETC.

### **CERCLIS Assessment History:**

Action Code: 001

Action: DISCOVERY

Date Started: / /
Date Completed: 05/02/85

Priority Level: Not reported
Operable Unit: SITEWIDE

Primary Responsibility: EPA Fund-Financed

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001

Action: PRELIMINARY ASSESSMENT

Date Started: / /
Date Completed: 09/20/85

Priority Level: Addressed as part of an existing NPL site

Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

FINDS:

Registry ID: 110009310361

### Environmental Interest/Information System

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

A3 COMMUNITY COLLEGE OF RI NEWPORT COUNTY RCRA-SQG
SE 1 JOHN H CHAFFEE BLVD RI MANIFEST

SE 1 JOHN H CHAFFEE BLVD 1/8-1/4 NEWPORT, RI 02840

0.171 mi.

905 ft. Site 1 of 2 in cluster A

Relative: RCRA-SQG:

Higher Date form received by agency: 02/02/2004

Facility name: COMMUNITY COLLEGE OF RI NEWPORT COUNTY

Actual: Facility address: 1 JOHN H CHAFFEE BLVD 60 ft. NEWPORT RL02840

NEWPORT, RI 02840 EPA ID: RIR000504407

Mailing address: LOUISQUISSETT PIKE

Valling address: LOUISQUISSETT PIKE LINCOLN, RI 02865

Contact: EMANUEL G TEREZAKIS
Contact address: LOUISQUISSETT PIKE

LINCOLN, RI 02865

Contact country: Not reported
Contact telephone: (401) 333-7140
Contact email: Not reported

EPA Region: 01

Classification: Small Small Quantity Generator

Description: Handler: generates more than 100 and less than 1000 kg of hazardous

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: RI BOARD OF GOV FOR HIGHER ED/CCRI

Owner/operator address: JOHN H CHAFEE BLVD NEWPORT, RI 02840

Owner/operator country: US

Owner/operator telephone: (401) 333-7140

Legal status: State

Owner/Operator Type: Owner
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Owner/operator name: CCRI NEWPORT COUNTY CAMPUS

Owner/operator address: JOHN H CHAFEE BLVD

NEWPORT, RI 02840

Owner/operator country: US

Owner/operator telephone: (401) 333-7140

Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No 1007265022

RIR000504407

Direction Distance Elevation

stance EDR ID Number evation Site Database(s) EPA ID Number

#### COMMUNITY COLLEGE OF RI NEWPORT COUNTY (Continued)

1007265022

Used oil fuel burner:

Used oil processor:

User oil refiner:

Used oil fuel marketer to burner:

Used oil Specification marketer:

Used oil transfer facility:

Used oil transporter:

No

Used oil transporter:

No

Hazardous Waste Summary:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002

Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D005 Waste name: BARIUM

Waste code: D007

Waste name: CHROMIUM

Waste code: D008 Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D011 Waste name: SILVER

Waste code: F001

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND

Direction Distance

Elevation Site Database(s) EPA ID Number

### COMMUNITY COLLEGE OF RI NEWPORT COUNTY (Continued)

1007265022

**EDR ID Number** 

1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: R003

Waste name: FLAMMABLE WASTE

Waste code: R004

Waste name: CORROSIVE WASTE

Violation Status: No violations found

RI MANIFEST:

GEN Cert Date: 12/14/2006 Transporter Receipt Date: 12/14/2006

Number Of Containers: 1 Container Type: DF

Waste Code1: D005D005R011
Waste Code2: Not reported
Waste Code3: Not reported
Comment: Not reported
Fee Exempt Code: Not reported

TSDF Name: NORTHLAND ENVIRONMENTAL, INC

TSDF ID: RID040098352
TSDF Date: Not reported
Transporter 2 Name: Not reported
Transporter 2 ID: Not reported

Manifest Docket Number: 002138178JJK

Waste Description: WASTE TOXIC, LIQUIDS, ORGANIC, N.O.S.

Quantity: 60 WT/Vol Units: P Item Number: 004

Transporter Name: 21ST CENTURY ENV MGT INC,OF RI

 Transporter EPA ID:
 RID980906986

 GEN Cert Date:
 12/14/2006

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

#### COMMUNITY COLLEGE OF RI NEWPORT COUNTY (Continued)

1007265022

**EDR ID Number** 

Transporter Recpt Date: 12/14/2006 Transporter 2 Recpt Date: Not reported TSDF Recpt Date: Not reported EPA ID: RIR000504407 Transporter 2 ID: Not reported

**COMMUNITY COLLEGE OF RI NEWPORT COUNTY** Α4

NY MANIFEST \$110305594

N/A

SE 1 JOHN H CHAFFEE BLVD NEWPORT, RI 02840 1/8-1/4

0.171 mi.

905 ft. Site 2 of 2 in cluster A

Relative: Higher

NY MANIFEST:

EPA ID: RIR000504407

> Country: USA

Actual: Mailing Name: COMMUNITY COLLEGE OF RI NEWPORT COUNTY 60 ft.

USA

Mailing Contact: KEN MCCABE Mailing Address: 400 EAST AVENUE Mailing Address 2: Not reported Mailing City: WARWICK Mailing State: RΙ Mailing Zip: 02886 Mailing Zip4: Not reported

Mailing Country: Mailing Phone: Not reported

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: MAD985286988 Trans2 State ID: Not reported Generator Ship Date: 2010-01-28 Trans1 Recv Date: 2010-01-28 Trans2 Recv Date: Not reported 2010-02-09 TSD Site Recv Date: Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: RIR000504407 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported TSDF ID: NYD077444263 Waste Code: Not reported 15.0 Quantity: Units: P - Pounds

Number of Containers: 1.0

DF - Fiberboard or plastic drums (glass) Container Type: Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 1.0 Year: 2010

002861647FLE Manifest Tracking Num:

Import Ind: Ν **Export Ind:** Ν Discr Quantity Ind: Ν Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: N

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### COMMUNITY COLLEGE OF RI NEWPORT COUNTY (Continued)

S110305594

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported Mgmt Method Type Code: H141

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: MAD985286988 Trans2 State ID: Not reported 2010-01-28 Generator Ship Date: Trans1 Recv Date: 2010-01-28 Trans2 Recv Date: Not reported TSD Site Recv Date: 2010-02-09 Part A Recv Date: Not reported Part B Recv Date: Not reported RIR000504407 Generator EPA ID: Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported NYD077444263 TSDF ID: Waste Code: Not reported Quantity: 15.0 P - Pounds

Units: Number of Containers: 1.0

Container Type: DF - Fiberboard or plastic drums (glass) Handling Method: B Incineration, heat recovery, burning.

TH3A-HWM

Specific Gravity: 1.0 2010

002861647FLE Manifest Tracking Num:

Import Ind: Ν Export Ind: Ν Discr Quantity Ind: Ν Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported

Mgmt Method Type Code: H141

**TONOMY HILL REVITALIZATION - PHASE 3 A MAPLE AVENUE & GIRARD AVENUE** 

1/8-1/4 **NEWPORT, RI** 

0.239 mi.

**B5** 

SSE

1261 ft. Site 1 of 3 in cluster B

Relative:

Actual:

90 ft.

SHWS:

Project Code: Higher

**Facility Status:** Active Project Code Desc: TH3A-HWM Project Date: 03/14/2005

TH3B-HWM Project Code: **Facility Status:** Active TH3B-HWM Project Code Desc: Project Date: 03/14/2005

RI SHWS \$106859337

N/A

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

TONOMY HILL REVITALIZATION - PHASE 3 A (Continued)

S106859337

Project Code: TH3C-HWM **Facility Status:** Active Project Code Desc: TH3C-HWM Project Date: 03/14/2005

В6 **TONOMY HILL REVITALIZATION - PHASE 1-B** RI SHWS S106664172 SSE **MAPLE & GIRARD AVENUES RI AUL** N/A

**NEWPORT, RI** 1/8-1/4

0.239 mi.

Site 2 of 3 in cluster B 1261 ft.

SHWS: Relative:

Project Code: Higher TH1B-HWM **Facility Status:** Inactive Actual: Project Code Desc: TH1B-HWM 90 ft. Project Date: 05/07/2002

> Project Code: THP2-HWM Facility Status: Active Project Code Desc: THP2-HWM 10/28/2003 Project Date:

> Project Code: TH2B-HWM **Facility Status:** Active TH2B-HWM Project Code Desc: Project Date: 05/07/2002

> Project Code: TH2C-HWM **Facility Status:** Active Project Code Desc: TH2C-HWM Project Date: 05/07/2002

Project Code: TNMY-HWM Facility Status: Inactive Project Code Desc: TNMY-HWM Project Date: 05/07/2002

AUL:

ELUR Date: 12/21/2004

Count Of Town: 1 Facility Size (Acres): 2.54

**B7 TONOMY HILL REVITALIZATION - PHASE I-A** 

SSE **MAPLE AND GIRARD AVENUES NEWPORT, RI** 

1/8-1/4

0.239 mi.

1261 ft. Site 3 of 3 in cluster B

Relative:

ELUR Date: Higher 12/21/2004

Count Of Town: Facility Size (Acres): 11.6

Actual: 90 ft.

TC3723834.2s Page 17

RI AUL S107459436

N/A

Direction Distance

Distance EDR ID Number EDevation Site EDR ID Number Database(s) EPA ID Number

C8 HILL MART RI LUST S112205540

South 295 CONNELL HIGHWAY N/A

1/4-1/2 NEWPORT, RI

0.290 mi.

1530 ft. Site 1 of 2 in cluster C

Relative: LUST:

Higher Project Number: 2294-ST Project Date: 10/09/2012

Actual: Facility Id: 50

44 ft. Facility Status: Soil Removal Only; No Further Action Required

C9 BELL ATLANTIC RI LUST \$103350070

South 286 CONNELL HIGHWAY N/A

1/4-1/2 NEWPORT, RI

0.311 mi.

1642 ft. Site 2 of 2 in cluster C

Relative: LUST:

Higher Project Number: 2253-LS Project Date: 11/14/1997

Actual: Facility Id: 1226

39 ft. Facility Status: Inactive; Investigation/Remed. Complete, No Further Action Required

10 FESTIVAL FIELD APARTMENTS RI LUST U003114383

SSE 90 GIRARD AVE RI UST N/A
1/4-1/2 NEWPORT, RI

1/4-1/2 0.474 mi. 2501 ft.

Relative: LUST:

Higher Project Number: 2245-ST

Project Date: 10/23/1995 **Actual:** Facility Id: 17339

99 ft. Facility Status: Inactive; Investigation/Remed. Complete,No Further Action Required

UST:

Facility ID: UST-17339
Facility Class: Commercials

Tank ID:

Tank Status: Permanently Closed

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 Date Installed: 04/25/2001

Tank ID: 2

Tank Status: Permanently Closed

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 Date Installed: 04/25/2001

Tank ID:

Tank Status: Permanently Closed

Tank Capacity: 4000

Tank Substance: Heating Oil No.2

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**FESTIVAL FIELD APARTMENTS (Continued)** 

U003114383

Date Installed: 04/25/2001

Tank ID:

Tank Status: **Permanently Closed** 

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 04/25/2001 Date Installed:

Tank ID:

Tank Status: **Permanently Closed** 

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 Date Installed: 04/25/2001

Tank ID: 6

**Permanently Closed** Tank Status:

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 04/25/2001 Date Installed:

Tank ID:

**Tank Status: Permanently Closed** 

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 04/25/2001 Date Installed:

Tank ID:

Tank Status: **Permanently Closed** 

Tank Capacity: 4000

Tank Substance: Heating Oil No.2 04/25/2001 Date Installed:

**R.K. FESTIVAL SHOPPES** 11 ssw 199 CONNELL HIGHWAY 1/4-1/2 **NEWPORT, RI** 

0.485 mi. 2560 ft.

SHWS: Relative:

Project Code: **RKF-HWM** Lower

**Facility Status:** Active Actual: Project Code Desc: **RKF-HWM** 13 ft. Project Date: 07/09/1999 RI SHWS S104180211

N/A

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

12 GETTY SERVICE STATION - #68002 RI SHWS U003207682 East 10 CODDINGTON HWY RI LUST N/A

1/2-1 MIDDLETOWN, RI RI UST

0.510 mi. 2695 ft.

Relative: SHWS:

Higher Project Code: GS68-HWM Facility Status: Active

Actual: Project Code Desc: GS68-HWM 91 ft. Project Date: 08/17/2012

LUST:

Project Number: 1917A-LS Project Date: 12/08/2009 Facility Id: 1341

Facility Status: Inactive; Investigation/Remed. Complete, No Further Action Required

Project Number: 1917-LS
Project Date: 04/26/1994
Facility Id: 1341

Facility Status: Inactive; Investigation/Remed. Complete,No Further Action Required

UST:

Facility ID: UST-1341 Facility Class: Gasoline Station

Tank ID:

Tank Status: Permanently Closed

Tank Capacity: 1000
Tank Substance: Waste Oil
Date Installed: 07/01/1972

Tank ID: 2

Tank Status: Permanently Closed

Tank Capacity: 500

Tank Substance: Heating Oil No.2 Date Installed: 07/01/1972

Tank ID: 3

Tank Status: Permanently Closed

Tank Capacity: 8000
Tank Substance: Gasoline
Date Installed: 07/01/1972

Tank ID:

Tank Status: Permanently Closed

Tank Capacity: 8000
Tank Substance: Gasoline
Date Installed: 07/01/1972

Tank ID: 5

Tank Status: Permanently Closed

Tank Capacity: 8000

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**GETTY SERVICE STATION - #68002 (Continued)** 

U003207682

Tank Substance: Gasoline Date Installed: 07/01/1972

Tank ID:

Tank Status: **Permanently Closed** 

Tank Capacity: 6000 Tank Substance: Gasoline Date Installed: 06/01/1996

Tank ID:

Tank Status: **Permanently Closed** 

Tank Capacity: Tank Substance: Gasoline Date Installed: 06/01/1996

Tank ID:

**Permanently Closed** Tank Status:

Tank Capacity: 12000 Tank Substance: Gasoline Date Installed: 06/01/1996

13 **MOBIL STATION RI SHWS** S106250408 SSW 163 J. T. CONNELL HIGHWAY **RI LUST** N/A

1/2-1 **NEWPORT, RI** 

0.541 mi. 2856 ft.

SHWS: Relative:

MOBS-HWM Project Code: Higher **Facility Status:** Inactive Actual: Project Code Desc: MOBS-HWM

39 ft. Project Date: 12/16/2002

LUST:

Project Number: 2208-LS 01/01/1989 Project Date: Facility Id: 1511

Facility Status: Inactive; Investigation/Remed. Complete, No Further Action Required

14 **U - HAUL** RI SHWS S105617934 N/A

111 J.T. CONNELL HIGHWAY South

1/2-1 **NEWPORT, RI** 

0.610 mi. 3220 ft.

SHWS: Relative:

Project Code: **UHAL-HWM** Lower

**Facility Status:** Inactive Actual: Project Code Desc: **UHAL-HWM** 18 ft. Project Date: 08/26/1996

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

15 PARK HOLM - HOUSING AUTHORITY OF NEWPORT - PHASE I **RI SHWS** S113740769

**120 HILLSIDE AVENUE** 

**NEWPORT, RI** 1/2-1

0.737 mi. 3889 ft.

SSE

SHWS: Relative:

Project Code: PHOLM-HWM Higher

**Facility Status:** Active Actual: Project Code Desc: PHOLM-HWM 104 ft. Project Date: 05/02/2013

**WEST MARINE INC** RCRA-SQG 1000281860 16 **ESE 379 W MAIN RD RI SHWS** RID018507996

1/2-1 MIDDLETOWN, RI 02842 **RI MANIFEST** RI AUL

0.750 mi. 3958 ft.

RCRA-SQG: Relative:

Date form received by agency: 02/22/2011 Higher

Facility name: WEST MARINE INC Actual: Facility address: 379 W MAIN RD 124 ft.

MIDDLETOWN, RI 02842

EPA ID: RID018507996

Mailing address: W MAIN RD

MIDDLETOWN, RI 02840 Contact: MARK HADLEY

Contact address: WESTRIDGE DR

WATSONVILLE, CA 95076

Contact country: US

(831) 761-6836 Contact telephone: Contact email: Not reported

EPA Region: 01

Classification: Small Small Quantity Generator

Handler: generates more than 100 and less than 1000 kg of hazardous Description:

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

hazardous waste at any time

Owner/Operator Summary:

WEST MARINE INC Owner/operator name:

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: Private Owner/Operator Type: Operator Owner/Op start date: 02/03/2011 Owner/Op end date: Not reported

Owner/operator name: WEST MARINE PRODUCTS INC

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: Private Owner/Operator Type: Owner Owner/Op start date: 02/05/2010

N/A

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

### **WEST MARINE INC (Continued)**

1000281860

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: Nο Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

**Historical Generators:** 

Date form received by agency: 02/28/2000

Facility name: WEST MARINE INC

Site name: **BOULEVARD NURSERIES INC** Classification: Not a generator, verified

Date form received by agency: 10/04/1988

Facility name: WEST MARINE INC

Site name: **BOULEVARD NURSERIES INC** Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001

IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF Waste name:

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code:

A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS Waste name:

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS

NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE

OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Direction Distance Elevation

tance EDR ID Number vation Site Database(s) EPA ID Number

WEST MARINE INC (Continued)

1000281860

Waste code: D004
Waste name: ARSENIC

Waste code: D005

Waste name: BARIUM

Waste code: D006 Waste name: CADMIUM

Waste code: D007

Waste name: CHROMIUM

Waste code: D008 Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D010
Waste name: SELENIUM

Waste code: D011
Waste name: SILVER
Waste code: D018

Waste code: D027

Waste name:

Waste name: 1,4-DICHLOROBENZENE

BENZENE

Waste code: D029

Waste name: 1,1-DICHLOROETHYLENE

Waste code: D035

Waste name: METHYL ETHYL KETONE

Waste code: D039

Waste name: TETRACHLOROETHYLENE

Waste code: U002

Waste name: ACETONE (I)

Waste code: U154

Waste name: METHANOL (I)

Waste code: U159

Waste name: 2-BUTANONE (I,T)

Waste code: R002

Waste name: REACTIVE WASTE

Violation Status: No violations found

SHWS:

Project Code: BOUN-HWM
Facility Status: Inactive
Project Code Desc: BOUN-HWM
Project Date: 02/17/1998

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **WEST MARINE INC (Continued)**

1000281860

RI MANIFEST:

5/3/1989 GEN Cert Date: Transporter Receipt Date: Not reported

Number Of Containers:

Container Type: Not reported Waste Code1: D001

Waste Code2: Not reported Not reported Waste Code3: Comment: Not reported Fee Exempt Code: Not reported TSDF Name: SK

MAD000846006 TSDF ID: TSDF Date: Not reported Transporter 2 Name: Not reported Transporter 2 ID: Not reported

Manifest Docket Number: MAC754429 PET NAP Waste Description: Quantity: 180 WT/Vol Units: Ρ Item Number: 1 Transporter Name: SK

ILD000805911 Transporter EPA ID: **GEN Cert Date:** 5/3/1989 Not reported Transporter Recpt Date: Not reported Transporter 2 Recpt Date: TSDF Recpt Date: Not reported EPA ID: RID018507996 Transporter 2 ID: Not reported

AUL:

**ELUR Date:** 02/27/2002

Count Of Town: Facility Size (Acres): 2.200

D17 MARRIOTT RESIDENCE INN 325 WEST MAIN ROAD **ESE** MIDDLETOWN, RI 1/2-1

0.762 mi.

4021 ft. Site 1 of 2 in cluster D

Relative: Higher

SHWS:

Project Code: **Facility Status:** Inactive Actual: Project Code Desc: **RESI-HWM** 132 ft. Project Date: 02/15/2006

> Project Code: **RES2-HWM Facility Status:** Active Project Code Desc: **RES2-HWM** Project Date: Not reported

**RESI-HWM** 

AUL:

ELUR Date: 12/26/2007

Count Of Town: Facility Size (Acres): 6.325 **RI SHWS** 

**RI AUL** 

S109823782

N/A

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

E18 **NEWPORT CITY DUMP RI SHWS** S104180210 South **ADMIRAL KALBFUS ROAD** N/A

**NEWPORT, RI** 1/2-1

0.767 mi.

4049 ft. Site 1 of 2 in cluster E

SHWS: Relative:

NCDP-HWM Project Code: Higher **Facility Status:** Inactive Actual: Project Code Desc: NCDP-HWM 49 ft. Project Date: 08/27/1970

D19 FIRST BRISTOL CORP **ESE** 317 WEST MAIN ROAD MIDDLETOWN, RI

1/2-1 0.768 mi.

Site 2 of 2 in cluster D 4054 ft.

Relative:

SHWS:

Project Code: FBRC-HWM Higher **Facility Status:** Inactive Actual: Project Code Desc: FBRC-HWM 140 ft. Project Date: 12/20/2001

AUL:

ELUR Date: 03/11/2004

Count Of Town: Facility Size (Acres): 1.399

E20 JAI ALAI **RI SHWS** S103247144 South 150 ADMIRAL KALBFUS ROAD **RI AUL** N/A

1/2-1 **NEWPORT, RI** 

0.787 mi.

4154 ft. Site 2 of 2 in cluster E

SHWS: Relative:

JAI-HWM Higher Project Code: Facility Status: Active JAI-HWM Actual: Project Code Desc: 39 ft. Project Date: 02/13/1998

AUL:

ELUR Date: 04/05/2006

Count Of Town: Facility Size (Acres): 17.69 **RI SHWS** 

**RI AUL** 

S105200789

N/A

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

21 **ROLLING GREEN VILLAGE APARTMENTS RI SHWS** S108852250 SSE N/A

105 ADMIRAL KAUFBUS ROAD

**NEWPORT, RI** 1/2-1

0.803 mi. 4242 ft.

SHWS: Relative:

Project Code: **RGVA-HWM** Higher Facility Status: Active Actual: Project Code Desc: **RGVA-HWM** 95 ft. Project Date: 07/12/2007

F22 **FREITAS PROPERTY RI SHWS** 1006703485 **ENE** 741 WEST MAIN ROAD **RI AUL** N/A

1/2-1 MIDDLETOWN, RI

0.866 mi.

4573 ft. Site 1 of 2 in cluster F

Relative:

SHWS:

Project Code: FRTS-SFA Higher Facility Status: Active Actual: Project Code Desc: FRTS-SFA 106 ft. Project Date: 02/16/2001

> FRTS-HWM Project Code: **Facility Status:** Active Project Code Desc: FRTS-HWM Project Date: 12/17/1999

AUL:

ELUR Date: 04/11/2007

Count Of Town: Facility Size (Acres): 0.770

23 **SULLIVAN SCHOOL RI SHWS** S104180083 SE **35 DEXTER AVENUE RI LUST** N/A

1/2-1 0.878 mi. 4637 ft.

SHWS: Relative:

Higher Project Code: SPES-HWM Facility Status: Active Actual: Project Code Desc: SPES-HWM 108 ft. Project Date: 02/10/2011

LUST:

**NEWPORT, RI** 

Project Number: 2267-ST Project Date: 07/12/1999 Facility Id:

Facility Status: Soil Removal Only; No Further Action Required

Direction Distance

Distance Elevation Site EDR ID Number

Database(s) EPA ID Number

F24 TONI MARINE SALES AND SERVICE RI SHWS S106664166
ENE 759 WEST MAIN ROAD N/A

ENE 759 WEST MAIN ROAD 1/2-1 MIDDLETOWN, RI

0.885 mi.

4672 ft. Site 2 of 2 in cluster F

Relative: SHWS:

 Higher
 Project Code:
 TONI-HWM

 Facility Status:
 Active

 Actual:
 Project Code Desc:
 TONI-HWM

 79 ft.
 Project Date:
 09/02/2004

 25
 AQUIDNECK GROUP
 RI SHWS
 U003208648

 East
 99 EAST MAIN ROAD
 RI LUST
 N/A

1/2-1 MIDDLETOWN, RI

0.941 mi. 4966 ft.

Relative: SHWS:

 Higher
 Project Code:
 AQUI-HWM

 Facility Status:
 Active

 Actual:
 Project Code Desc:
 AQUI-HWM

 65 ft.
 Project Date:
 10/22/2003

LUST:

Project Number: 1908-LS
Project Date: 12/20/1990
Facility Id: 2653

Facility Status: Soil Removal Only; No Further Action Required

Count: 20 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	
NEWPORT	1000112199	NEW ENGLAND TELEPHONE CO	CONNELL HWY	02840	RCRA-SQG,MANIFEST	
MIDDLETOWN	1000200923		CODDINGTON COVE	02840	FINDS, MANIFEST, MANIFEST, RCRA-	
NEWPORT	1000280283	BOWLER REALTY	CONNELL HGY	02840	FINDS,RCRA-NLR,MANIFEST	
NEWPORT	1000288128	Colbea Enterprises, LLC	CONNELL & KALBFUS	02840	FINDS,RCRA-NLR,MANIFEST	
NEWPORT	1000328071	SUNOCO SERVICE STATION	UNKNOWN	02840	FINDS,RCRA-NLR	
MIDDLETOWN	1000445238	US NAVY SUPERVISOR OF SHIPBUILDING	CODDINGTON COVE	02842	FINDS,RCRA-NLR	
NEWPORT	1000574147	ExxonMobil Oil Corp 01-235	RTE 138	02840	FINDS, MANIFEST, MANIFEST, RCRA-	
NEWPORT	1000695671	NYNEX	CONNELL HWY	02840	FINDS,RCRA-NLR	
NORTH KINGSTOWN	1000801385	NAS FIREFIGHTING AREA	EAST OF RUNWAY #1634		HWS	
NEWPORT	1000882687	NAVAL STATION NEWPORT PUBLIC WORKS	ONE SIMON PIETRI DRIVE	02841	CORRACTS,RCRA-TSDF,MANIFEST,	
NEWPORT	1003862597	ROSE ISLAND	NEWPORT HARBOR		CERCLIS-NFRAP,HWS	
NEWPORT	1003862738	HARRISON AVENUE DUMP	HARRISON AVENUE		CERCLIS-NFRAP,HWS	
PORTSMOUTH	1007209095	US NAVAL STATION-NEWPORT	195 BURMA RD	02871	MANIFEST	
NEWPORT	1009246891	SIPCO SERVICES	CONNELL HIGHWAY	02840	MANIFEST	
NEWPORT	1009246892	R I BACKPANEL	299 JOHN CLARK ROAD	02840	MANIFEST	
NEWPORT	A100282986	DEPT. OF THE NAVY-BUILDING #68	NAVAL STATION NEWPORT-PIER 2 D		AST	
NEWPORT	A100380212	NEWPORT BIODEISEL	312 CONNEL HWY		AST	
NEWPORT	S103247150	NEWPORT VOCATIONAL SCHOOL	OLD FORTE RD		HWS	
NEWPORT	S104943030	AARDVARK ANTIQUES	9 JT CONNELL HIGHWAY		AUL,HWS	
NEWPORT	S112205238	NATIONAL GRID PROPERTY - NEWPORT	286 J.T. CONNELL HIGHWAY		HWS	

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013 Source: EPA
Date Data Arrived at EDR: 05/09/2013 Telephone: N/A

Number of Days to Update: 62 Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

**NPL Site Boundaries** 

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2013 Source: EPA
Date Data Arrived at EDR: 05/09/2013 Telephone: N/A

Number of Days to Update: 62 Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site list

**DELISTED NPL: National Priority List Deletions** 

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 62

Source: EPA Telephone: N/A

Last EDR Contact: 07/12/2013

Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

#### Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/29/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 72

Source: EPA Telephone: 703-412-9810

Last EDR Contact: 08/30/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 10/09/2012 Date Made Active in Reports: 12/20/2012

Number of Days to Update: 72

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 07/08/2013

Next Scheduled EDR Contact: 10/21/2013 Data Release Frequency: Varies

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/29/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 72

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 08/30/2013

Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/21/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 6

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/18/2013 Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013 Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/18/2013 Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 08/09/2013 Number of Days to Update: 39

Source: Environmental Protection Agency Telephone: (888) 372-7341

Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013 Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/14/2013 Date Data Arrived at EDR: 03/29/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/14/2013 Date Data Arrived at EDR: 03/29/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 31

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 08/15/2013

Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/17/2013 Date Made Active in Reports: 02/15/2013

Number of Days to Update: 29

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 07/01/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

### State- and tribal - equivalent CERCLIS

SHWS: List of CERCLIS and State Sites in RI

This list includes sites that have been investigated under the Federal CERCLIS program (?SFA? sites) as well as sites that have notified under the state program or have been investigated for hazardous substances (?HWM? sites).

Date of Government Version: 08/02/2013 Date Data Arrived at EDR: 08/13/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 6

Source: Department of Environmental Management

Telephone: 401-222-3872 Last EDR Contact: 07/15/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

#### SWF/LF: Solid Waste Management Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/31/2013 Date Data Arrived at EDR: 05/31/2013 Date Made Active in Reports: 07/29/2013

Number of Days to Update: 59

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 07/15/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

#### LCP: Landfill Closure Program Sites in RI

This inventory contains both formerly permitted landfills that are closed as well as dumps that were never licensed by the Department. This list does not include Superfund Sites and current or former Federal Facilities. This list includes lat/long data that has not been field verified.

Date of Government Version: 08/13/2013 Date Data Arrived at EDR: 08/14/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 5

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Varies

### State and tribal leaking storage tank lists

### LUST: LUST Case List

The LUST Case List is a summary of UST Facilities in RI with leaking USTs, which includes information on the date of release discovery and the status of the LUST Case (active, soil removal only, or inactive).

Date of Government Version: 05/01/2013 Date Data Arrived at EDR: 05/08/2013 Date Made Active in Reports: 07/29/2013

Number of Days to Update: 82

Source: Department of Environmental Management

Telephone: 401-222-3872 Last EDR Contact: 07/15/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

#### INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 43

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

# INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 65

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012 Date Data Arrived at EDR: 08/28/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 49

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 11/01/2012 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 162

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/02/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 02/08/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011 Date Data Arrived at EDR: 09/13/2011 Date Made Active in Reports: 11/11/2011

Number of Days to Update: 59

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

### State and tribal registered storage tank lists

UST: UST Master List

The UST Master List is a summary of registered UST Facilities in RI, which includes information on abandoned, in use, permanently closed and temporarily closed USTs.

Date of Government Version: 05/01/2013 Date Data Arrived at EDR: 05/08/2013 Date Made Active in Reports: 07/29/2013

Number of Days to Update: 82

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 07/15/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 01/01/2013 Date Data Arrived at EDR: 06/26/2013 Date Made Active in Reports: 08/06/2013

Number of Days to Update: 41

Source: Department of Environmental Management

Telephone: 401-222-3872 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 11/07/2012 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 156

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/02/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 02/08/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012 Date Data Arrived at EDR: 08/03/2012 Date Made Active in Reports: 11/05/2012

Number of Days to Update: 94

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011 Date Data Arrived at EDR: 05/11/2011 Date Made Active in Reports: 06/14/2011

Number of Days to Update: 34

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 43

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012 Date Data Arrived at EDR: 08/28/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 49

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 65

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 45

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Varies

## State and tribal institutional control / engineering control registries

AUL: Waste Management Sites with Environmental Land Use Restrictions

This list was developed by RIDEM for use as a general reference and are not meant to be legally authoritative source for the location of hazardous materials, nor for the status, condition or permissible use of a site.

Date of Government Version: 08/09/2013 Date Data Arrived at EDR: 08/13/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 6

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/09/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

## State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 10/02/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 14

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 07/02/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

#### State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

Brownfields are real properties where the expansion, redevelopment or reuse may be complicated by the actual or potential presence of a hazardous substance, pollutant, or contaminat.

Date of Government Version: 10/02/2003 Date Data Arrived at EDR: 10/07/2003 Date Made Active in Reports: 10/21/2003

Number of Days to Update: 14

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Semi-Annually

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

#### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/24/2013 Date Data Arrived at EDR: 06/25/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 45

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 08/05/2013

Next Scheduled EDR Contact: 10/07/2013 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/26/2013

Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 07/31/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

## US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/04/2013 Date Data Arrived at EDR: 03/12/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 59

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 09/04/2013

Next Scheduled EDR Contact: 12/16/2013 Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Information Listing
A listing of clandestine drug lab site locations.

Date of Government Version: 10/03/2006 Date Data Arrived at EDR: 12/04/2006 Date Made Active in Reports: 12/18/2006

Number of Days to Update: 14

Source: Dept of Environmental Management

Telephone: 401-274-4400 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

## US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

## Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 04/25/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 15

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

#### Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013

Number of Days to Update: 55

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 07/01/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

SPILLS: Oil & Hazardous Material Response Log/Spill Report Spills reported to the Office of Emergency Response.

Date of Government Version: 11/15/2004 Date Data Arrived at EDR: 02/04/2005 Date Made Active in Reports: 03/24/2005

Number of Days to Update: 48

Source: Dept. of Environmental Management

Telephone: 401-222-3872 Last EDR Contact: 07/01/2013

Next Scheduled EDR Contact: 09/30/2013

Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 01/04/2001 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 55

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

## Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/18/2013 Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 08/08/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/05/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 03/13/2013

Number of Days to Update: 15

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 01/15/2013 Date Made Active in Reports: 03/13/2013

Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 06/25/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012 Date Data Arrived at EDR: 03/13/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 30

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 06/11/2013

Next Scheduled EDR Contact: 09/23/2013 Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/28/2013

Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 04/18/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/05/2013

Next Scheduled EDR Contact: 12/16/2013 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 09/01/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 131

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 08/30/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 64

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/25/2013

Next Scheduled EDR Contact: 10/07/2013 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the

Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

#### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Annually

#### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011 Date Data Arrived at EDR: 11/10/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 61

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 07/01/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

#### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012 Date Data Arrived at EDR: 01/16/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 114

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/17/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Annually

### MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/14/2013 Date Data Arrived at EDR: 03/20/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 112

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Quarterly

#### RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013 Date Data Arrived at EDR: 04/11/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 29

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/12/2013

Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

# FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013 Date Data Arrived at EDR: 03/21/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 111

Source: EPA

Telephone: (617) 918-1111 Last EDR Contact: 09/11/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Quarterly

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012 Date Data Arrived at EDR: 05/25/2012 Date Made Active in Reports: 07/10/2012

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 07/24/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

**BRS: Biennial Reporting System** 

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013

Number of Days to Update: 52

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/26/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Biennially

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 06/21/2013 Date Made Active in Reports: 08/05/2013

Number of Days to Update: 45

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/23/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Annually

DRYCLEANERS: Drycleaner Facility Listing A listing of drycleaner locations.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/02/2013

Number of Days to Update: 32

Source: Department of Environmental Management

Telephone: 401-222-2808 Last EDR Contact: 08/09/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

NPDES: Permit and Facility Data

A listing of permitted wastewater facilities

Date of Government Version: 03/28/2013 Date Data Arrived at EDR: 03/29/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 42

Source: Department of Environmental Management

Telephone: 401-222-4700 Last EDR Contact: 08/30/2013

Next Scheduled EDR Contact: 12/09/2013

Data Release Frequency: Varies

AIRS: Air Emissions Listing

A listing of facilities with air emissions.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/02/2013

Number of Days to Update: 32

Source: Department of Environmental Management

Telephone: 401-222-2808 Last EDR Contact: 08/09/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

LEAD: Lead Inspections Database

The listing includes Highest Risk Premises which are properties declared unsafe for habitation by children under age six (6), and Properties with Multiple Poisonings, which are properties that have been the source of multiple lead poisonings and are not currently lead safe.

Date of Government Version: 06/24/2013 Date Data Arrived at EDR: 06/25/2013 Date Made Active in Reports: 07/29/2013

Number of Days to Update: 34

Source: Department of Health, Environmental Lead Program

Telephone: 401-222-5960 Last EDR Contact: 06/25/2013

Next Scheduled EDR Contact: 10/07/2013 Data Release Frequency: Quarterly

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 08/01/2013

Next Scheduled EDR Contact: 11/04/2013 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 08/02/2013

Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010 Date Data Arrived at EDR: 01/03/2011 Date Made Active in Reports: 03/21/2011

Number of Days to Update: 77

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/14/2013

Next Scheduled EDR Contact: 09/23/2013 Data Release Frequency: Varies

Financial Assurance: Financial Assurance Information

Financial assurance information for hazardous waste facilities.

Date of Government Version: 05/14/2010 Date Data Arrived at EDR: 05/14/2010 Date Made Active in Reports: 06/21/2010

Number of Days to Update: 38

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/01/2013

Next Scheduled EDR Contact: 11/18/2013

Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013 Date Data Arrived at EDR: 02/14/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/03/2013

Next Scheduled EDR Contact: 10/21/2013

Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 08/16/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013

Data Release Frequency: N/A

#### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 02/18/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 81

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

> Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-5962 Last EDR Contact: 06/25/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 100

Source: FPA

Telephone: 202-564-5962 Last EDR Contact: 06/25/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/18/2012 Date Data Arrived at EDR: 04/04/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 97

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 07/03/2013

Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

# US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013 Date Data Arrived at EDR: 03/15/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 08/23/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Quarterly

#### **EDR HIGH RISK HISTORICAL RECORDS**

**EDR Exclusive Records** 

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Last EDR Contact: N/A

Note of Government Version: N/A

Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc.
Date Data Arrived at EDR: N/A Telephone: N/A
Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

## EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc.
Date Data Arrived at EDR: N/A Telephone: N/A
Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/20/2013 Date Data Arrived at EDR: 05/21/2013 Date Made Active in Reports: 06/27/2013

Number of Days to Update: 37

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 08/19/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/19/2012 Date Made Active in Reports: 08/28/2012

Number of Days to Update: 40

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 07/19/2013

Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 08/01/2013 Date Data Arrived at EDR: 08/07/2013 Date Made Active in Reports: 09/10/2013

Number of Days to Update: 34

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 07/24/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/18/2013

Next Scheduled EDR Contact: 11/04/2013 Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

Date of Government Version: 03/26/2013 Date Data Arrived at EDR: 05/24/2013 Date Made Active in Reports: 07/22/2013

Number of Days to Update: 59

Source: Department of Environmental Conservation

Telephone: 802-241-3443 Last EDR Contact: 07/18/2013

Next Scheduled EDR Contact: 11/04/2013 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/19/2012 Date Made Active in Reports: 09/27/2012

Number of Days to Update: 70

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 07/17/2013

Next Scheduled EDR Contact: 09/30/2013 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data Source: Rextag Strategies Corp. Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

#### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

#### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Provider Listing

Source: Department of Children, Youth & Families

Telephone: 401-528-3624

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Classification Data Source: Dept. of Administration/Statewide Planning

Telephone: 401-222-6483

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

# STREET AND ADDRESS INFORMATION

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# **GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

NEX SERVICE STATION 85-2 WHIPPLE ST NEWPORT, RI 02841

## **TARGET PROPERTY COORDINATES**

Latitude (North): 41.5192 - 41° 31' 9.12" Longitude (West): 71.3156 - 71° 18' 56.16"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 306779.0 UTM Y (Meters): 4598772.0

Elevation: 30 ft. above sea level

## **USGS TOPOGRAPHIC MAP**

Target Property Map: 41071-E3 PRUDENCE ISLAND, RI

Most Recent Revision: 2000

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

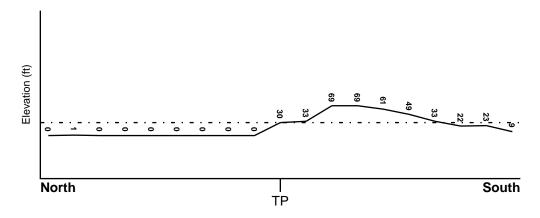
## **TOPOGRAPHIC INFORMATION**

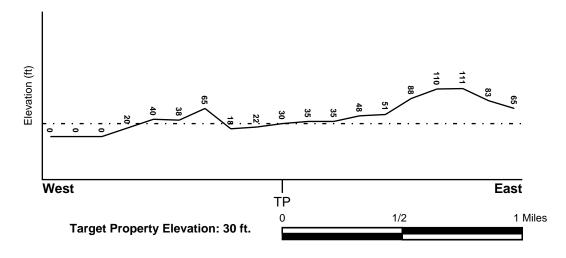
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood Electronic Data

Target Property County NEWPORT, RI

YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:

44005C - FEMA DFIRM Flood data

Additional Panels in search area:

Not Reported

NATIONAL WETLAND INVENTORY

NWI Electronic

NWI Quad at Target Property

Data Coverage

PRUDENCE ISLAND

YES - refer to the Overview Map and Detail Map

## **HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

# **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP

GENERAL DIRECTION GROUNDWATER FLOW

# **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

# GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

# **GEOLOGIC AGE IDENTIFICATION**

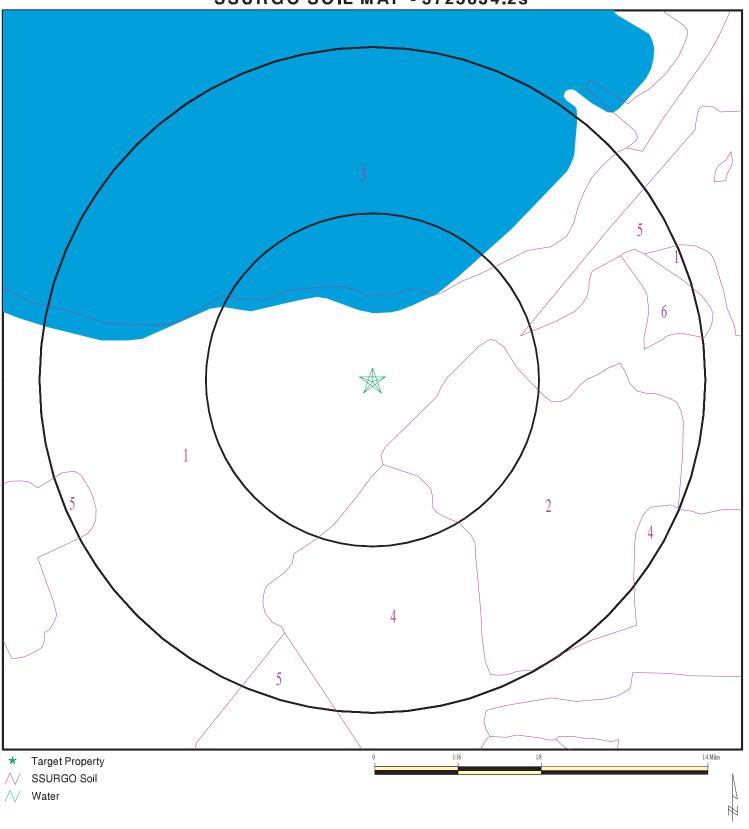
Era: Paleozoic Category: Stratifed Sequence

System: Pennsylvanian Series: Pennsylvanian

Code: PP (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 3723834.2s



SITE NAME: NEX Service Station ADDRESS: 85-2 WHIPPLE ST

Newport RI 02841 41.5192 / -71.3156 LAT/LONG:

CLIENT: AECOM
CONTACT: Naomi Ouellette
INQUIRY#: 3723834.2s

DATE: September 11, 2013 1:00 pm

# DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Udorthents

Soil Surface Texture:

Hydrologic Group: Not reported

Soil Drainage Class: Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Bou	ındary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	11 inches		Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6
2	11 inches	25 inches		Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6
3	25 inches	59 inches		Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6

Soil Map ID: 2

Soil Component Name: Newport

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic	
Layer	Upper Lower		Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	7 inches		Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5
2	7 inches	24 inches		Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5
3	24 inches	64 inches		Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Pittstown

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information							
	Bou	ndary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	7 inches		Not reported	Not reported	Max: 4.23 Min: 0.42	Max: 6 Min: 4.5
2	7 inches	27 inches		Not reported	Not reported	Max: 4.23 Min: 0.42	Max: 6 Min: 4.5
3	27 inches	59 inches		Not reported	Not reported	Max: 4.23 Min: 0.42	Max: 6 Min: 4.5

Soil Map ID: 5

Soil Component Name: Urban land

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 6

Soil Component Name: Stissing

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Oon Reaction
1	0 inches	7 inches		Not reported	Not reported	Max: 1.41 Min: 0.42	Max: 6 Min: 3.6
2	7 inches	14 inches		Not reported	Not reported	Max: 1.41 Min: 0.42	Max: 6 Min: 3.6
3	14 inches	59 inches		Not reported	Not reported	Max: 1.41 Min: 0.42	Max: 6 Min: 3.6

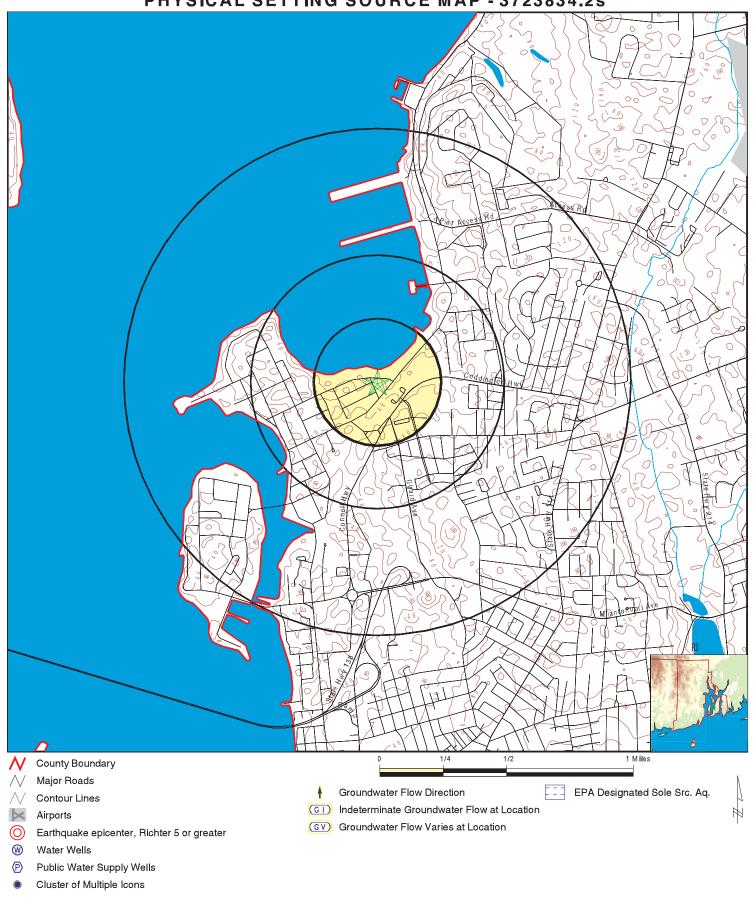
# **LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# WELL SEARCH DISTANCE INFORMATION

WELL SEARCH DISTANCE I	NFORMATION	
DATABASE	SEARCH DISTANCE (miles)	
Federal USGS Federal FRDS PWS State Database	1.000 Nearest PWS within 1 mile 1.000	
FEDERAL USGS WELL INFO	PRMATION	
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		
FEDERAL FRDS PUBLIC WA	ATER SUPPLY SYSTEM INFORMATION	
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		
Note: PWS System location	is not always the same as well location.	
STATE DATABASE WELL IN	IFORMATION	
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 3723834.2s



SITE NAME: NEX Service Station ADDRESS: 85-2 WHIPPLE ST

Newport RI 02841 LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM CONTACT: Naomi Ouellette INQUIRY#: 3723834.2s

DATE: September 11, 2013 1:00 pm

# GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS RADON

# AREA RADON INFORMATION

State Database: RI Radon

Radon Test Results

Zipcode	Num Tests	# < 4 pCi/L	4 to 20	# > 20 pCi/L	Maximum
02841	3	1	2	0	11.7

Federal EPA Radon Zone for NEWPORT County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NEWPORT COUNTY, RI

Number of sites tested: 31

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	0.817 pCi/L Not Reported	100% Not Reported	0% Not Reported	0% Not Reported
Basement	3.355 pCi/L	81%	16%	3%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

# HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Classification Data Source: Dept. of Administration/Statewide Planning

Telephone: 401-222-6483

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Community and Non-Community Wells

Source: Department of Environmental Management

Telephone: 401-277-2234

Includes Community, Non-Transient Non-Community and Transient Non-Community.

#### EPA-Approved Sole Source Aquifers in Rhode Island

Source: EPA

Sole source aquifers are defined as an aquifer designated as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for the area and for which there are no reasonable alternative sources should the aquifer become contaminated.

## OTHER STATE DATABASE INFORMATION

#### RADON

State Database: RI Radon
Source: Department of Health
Telephone: 401-222-2438
Radon Test Results

Area Radon Information Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

private sources such as universities and research institution

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

## OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

# STREET AND ADDRESS INFORMATION

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# **NEX Service Station**

85-2 WHIPPLE ST Newport, RI 02841

Inquiry Number: 3723834.4

September 11, 2013

# **EDR** Historical Topographic Map Report



# **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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TARGET QUAD

NAME: NARRAGANSETT BAY

MAP YEAR: 1892

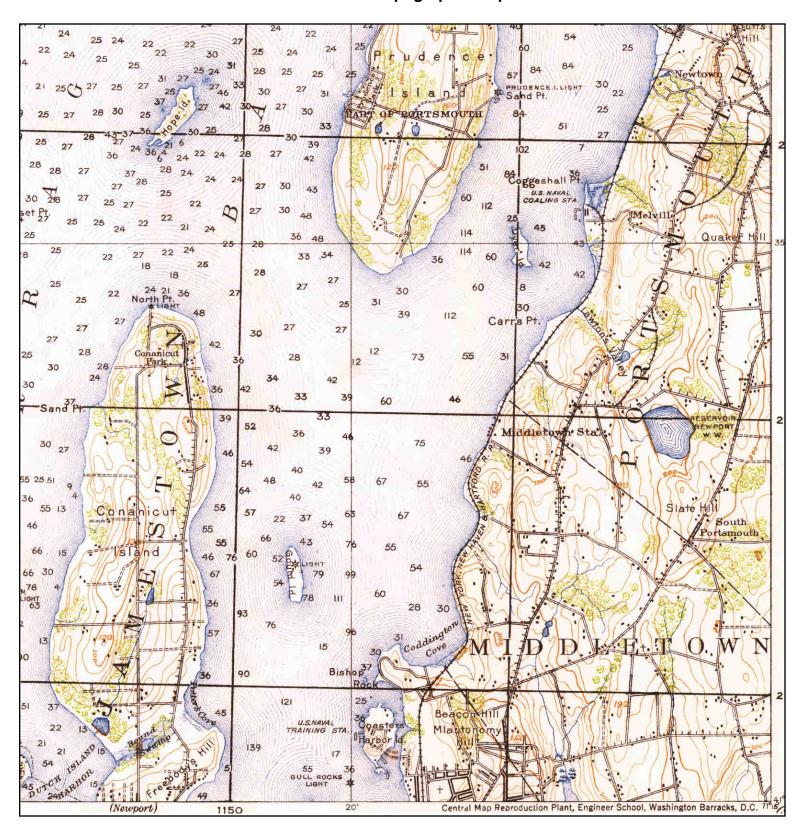
SERIES: 15 SCALE: 1:62500 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST

Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM





TARGET QUAD

NAME: NARRAGANSETT BAY

MAP YEAR: 1919

SERIES: 15 SCALE: 1:62500 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST

Newport, RI 02841 LAT/LONG: 41.5192 / -71.3156 CLIENT: AECOM





**TARGET QUAD** 

NAME: PRUDENCE ISLAND

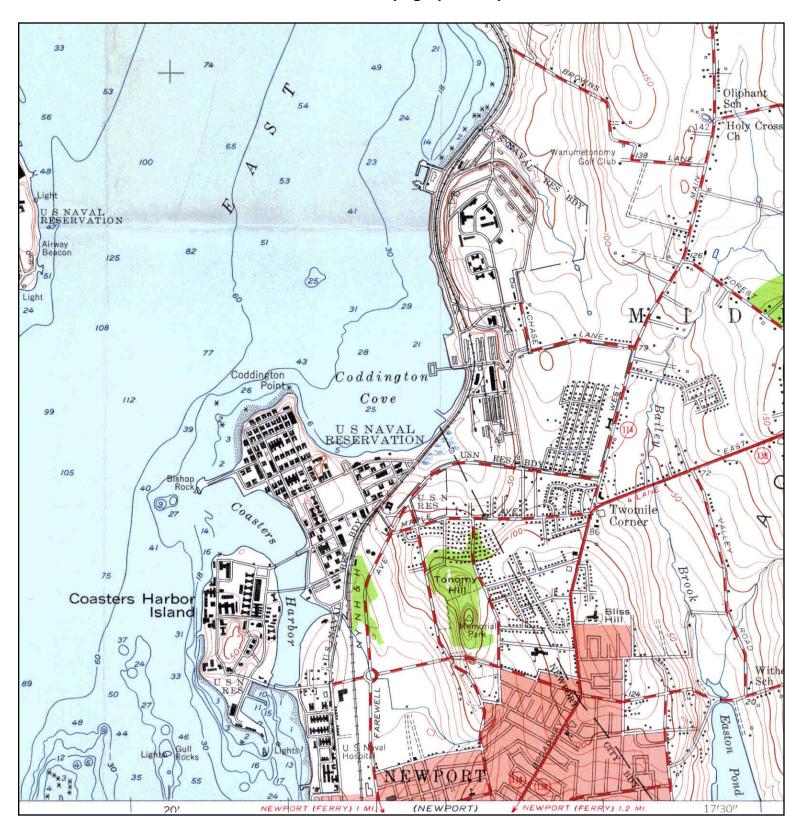
MAP YEAR: 1942

SERIES: 7.5 SCALE: 1:25000 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM





TARGET QUAD

NAME: PRUDENCE ISLAND

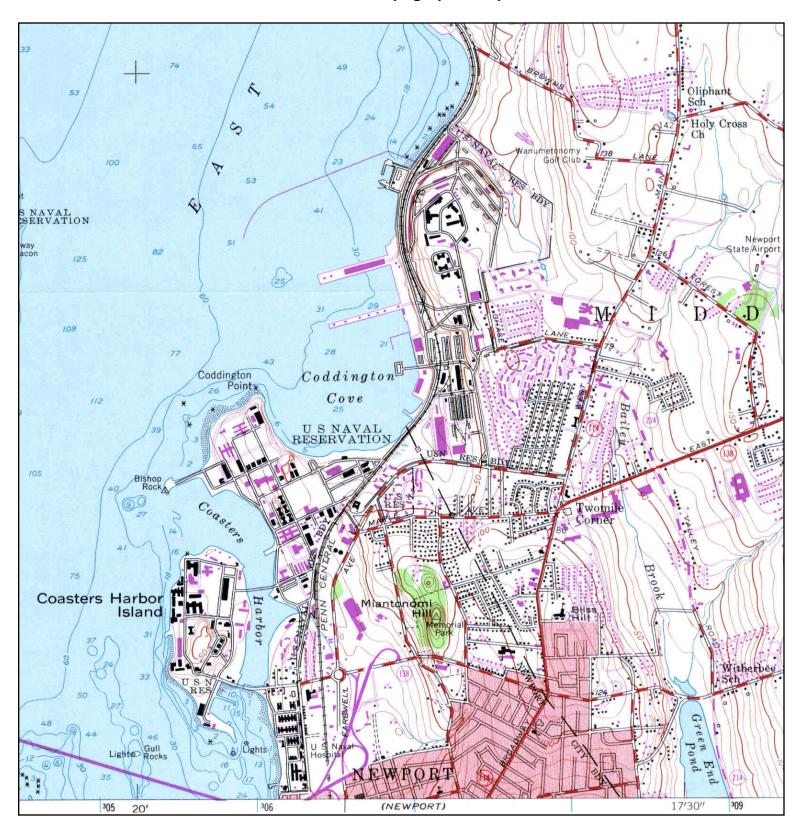
MAP YEAR: 1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM





TARGET QUAD

NAME: PRUDENCE ISLAND

MAP YEAR: 1970

PHOTOREVISED FROM:1955

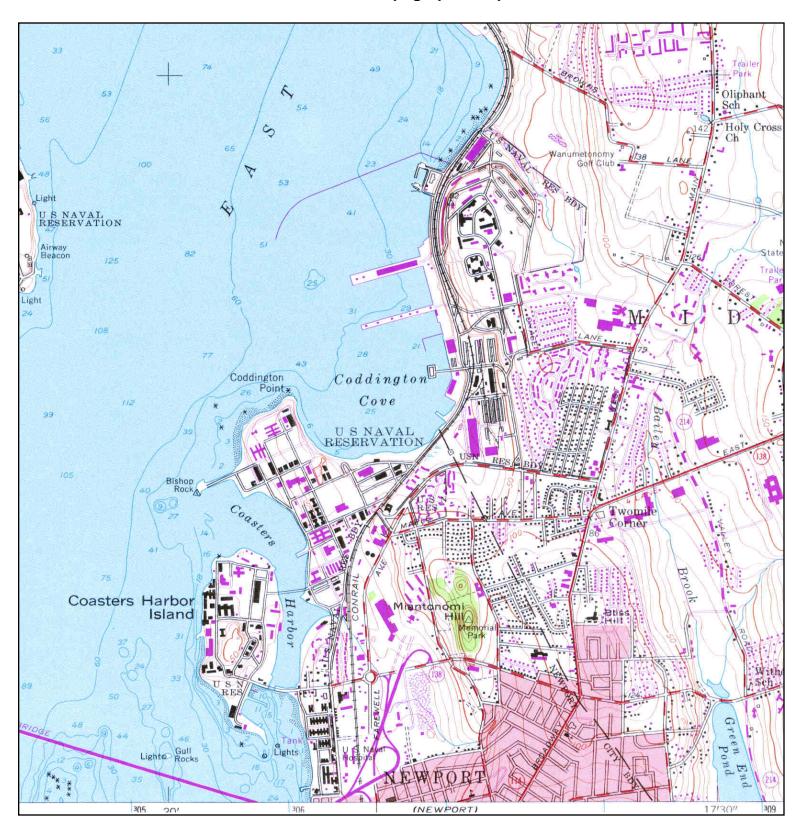
SERIES: 7.5 SCALE: 1:24000 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM

### **Historical Topographic Map**





TARGET QUAD

NAME: PRUDENCE ISLAND

MAP YEAR: 1975

PHOTOREVISED FROM:1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: NEX Service Station

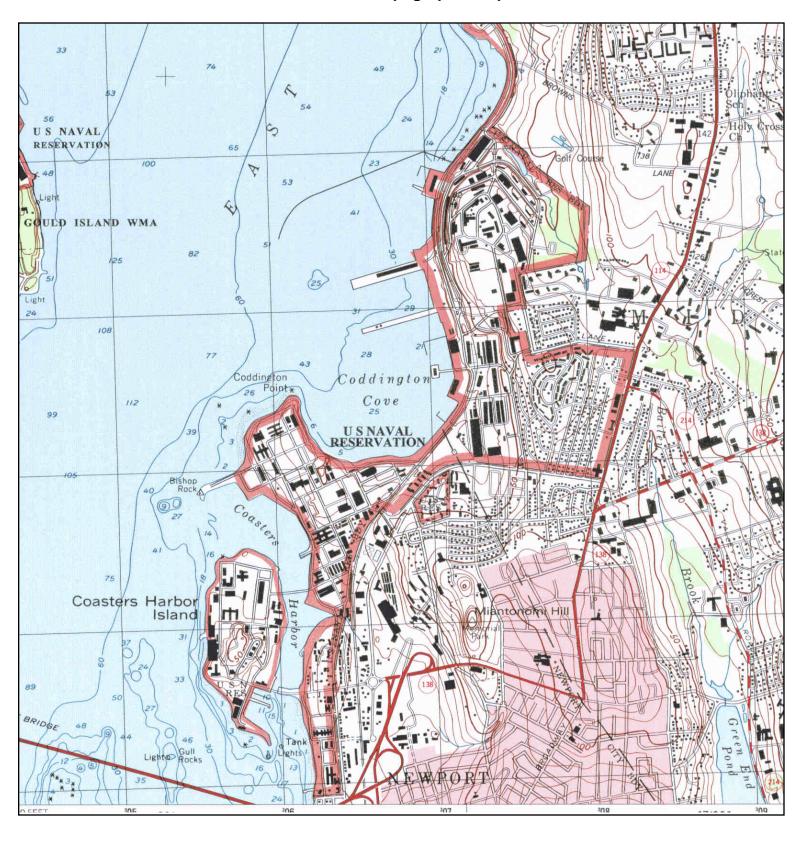
ADDRESS: 85-2 WHIPPLE ST Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM

CONTACT: Naomi Ouellette INQUIRY#: 3723834.4 RESEARCH DATE: 09/11/2013

### **Historical Topographic Map**





TARGET QUAD

NAME: PRUDENCE ISLAND

MAP YEAR: 1996

SERIES: 7.5 SCALE: 1:24000 SITE NAME: NEX Service Station

ADDRESS: 85-2 WHIPPLE ST Newport, RI 02841

LAT/LONG: 41.5192 / -71.3156

CLIENT: AECOM

CONTACT: Naomi Ouellette INQUIRY#: 3723834.4 RESEARCH DATE: 09/11/2013

### **Appendix C**

**Geologic and Well Completion Logs** 



# RS-MW1

Client: Navy CLEAN	Location: In front of bay 5/6	ogged By: Andrew Sayre			
CTO: WE40	<b>Northing:</b> 158887.9 <b>Easting:</b> 378654.7	Drilling Company: GEOSEARCH, INC.			
Contract: N6247011D8013		Driller Name/License #:			
Start Date: 11/13/2013 10:32:00 AM		Iling Equipment:			
Finish Date: 11/14/2013 10:26:00 AM	Sampling Method: Split spoon	Total Depth (ft): 15.0 Depth to Water (ft): 5.9			
Reco	Soil and Rock Description Classification Scheme: USCS	Well Diagram Well Diagram			
- 2 -	fine to medium SAND, little silt 20% fine to coarse gravel, (10YR 3/2) very dark grayish brown, non plastic, loose, dry, no odor, no staining, poorly gravel.				
0.7 SM	fine SAND, 30% silt trace medium sand, (5YR 8/3 pink (7.5YR 6/3) light brown, non plastic, soft to ve soft, moist to wet, no odor, no staining 5.0	ery Services			
- 6 - 14 6 1.9 SM	fine to coarse silty SAND, 10% fine gravel 30% sil (7.5YR 6/3) light brown, non plastic, medium soft, moist to wet, no odor, no staining, well graded				
16 22 1.7 SM	fine to coarse silty SAND, (10YR 5/2) grayish brown non plastic, stiff, moist, no odor, no staining	Filter pack			
13 12 NR SM	fine to coarse silty SAND, 30% silt 30% coarse gr (2.5YR 5/1) reddish gray (10YR 5/2) grayish brow non plastic very dense to hard, wet, no odor, no staining, angular, well graded	avel, n, Screen			
4 100/4" NR SM	Same as above				
5 100/5" NR BEDROCK	COBBLES, (10B 5/1) bluish gray, wet, no odor, no staining, crushed stone/shale				
	15.0 End of boring at 15.0 ft. bgs.	Base backfill			



# RS-MW2

Client	t: Nav	y CLEAN				Location: West of UST pad Logg	ogged By: Andrew Sayre			
сто:	WE4	0				<b>Northing:</b> 158904.9 <b>Easting:</b> 378615.6 <b>Drilli</b>	ng Company	GEOSEARCH, INC.		
		N6247011					er Name/Lice			
		11/13/20					lling Equipment:			
Finish		11/15/2	013 1:0	00:00 PM		Sampling Method: Split spoon Tota	Depth (ft): 1	15.0 <b>Depth to Water (ft):</b> 5.6		
Depth (ft bgs)	Recovery Length (inches)	Blowcount(s)	Headspace	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample	Well Diagram		
			0.8	SW		fine to coarse SAND, 10% silt 25% fine to coarse gravel, (10YR 5/2) grayish brown, non plastic, loose to soft, dry, no odor, no staining, subrounded, well graded		Casing (below ground) Seal		
- 4 - 	13	2	0.5	SP SP		fine SAND, 20% silt trace medium sand, (10YR 5/2) grayish brown, non plastic, loose to soft, moist to wet, no odor, no staining  5.0  fine to medium SAND, 10% silt, (2.5YR 4/4) reddish				
— 6 —		2 2 4 6	1.2	JI		brown, non plastic, loose to medium dense, wet, no odor, no staining, well graded	RS-SB2- 111513	<b>▼</b>		
- 8 -	19	6 10 12 12	1.4	SP		fine to medium SAND, 15% silt trace fine to coarse gravel, (7.5YR 6/3) light brown, non plastic, soft to medium dense, wet, no odor, no staining		▼ Filter pack		
 10	16	4 6 6 5	1.2	SM		fine to coarse SAND, 25% silt 30% fine to coarse gravel, (7.5YR 4/3) brown, non plastic, medium dense moist, no odor, no staining, subangular, well graded		Screen		
— — —12—	11	6 7 12 12	2.9	SM		fine to coarse SAND, 20% silt 30% fine to coarse gravel, (7.5R 2.5/3) very dusky red, (2.5YR 6/3) light reddish brown, non plastic, medium soft to medium dense, wet, no odor, no staining, subangular, well graded				
— — —14—	7	34 100/1"	1.1	SM		Same as above				
						15.0 End of boring at 15.0 ft. bgs.		Base backfill		



# RS-MW3

Client: Navy CLEAN Location: NW of dispenser pad, by parallel parking Logged By: Andrew Sayre							rew Sayre				
сто:	WE4	)				<b>Northing:</b> 158915.7 <b>Easting:</b> 378557.6	Drillin	ng Company	: GEOSEARCH, INC.		
Conti	ract: N	16247011	D8013	3		Ground Elevation: 11.18 NAVD88	Driller Name/License #:				
Start	Date:	11/13/20	13 12:	14:00 PM		Drilling Method: Hollow Stem Auger	Drillin	Drilling Equipment:			
Finis	т т	11/15/2	013 2:	30:00 PM		Sampling Method: Split spoon	Total	Depth (ft): 1	5.0 Depth to Water (ft): 6.4		
Depth (ft bgs)	Recovery Length (inches)	Blowcount(s)	Headspace	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		Lab Sample	Well Diagram		
	6	1 2 2 2	3.6	ML SWG		fine to coarse gravelly SAND, 40% fine to coarse gravel trace construction debris, (10YR 5/2) gravel trace construction debris, (10YR 5/2) gravel brown, non plastic, dry, no odor, no staining  fine to coarse SAND, 30% fine to coarse grave silt, (10YR 5/2) grayish brown, non plastic, dry slightly moist, no odor, no staining, subangular fine to coarse SAND, 35% fine to coarse grave (7.5YR 3/4) dark brown, non plastic, loose, slig moist to moist, no odor, no staining, subrounder graded	el 10% to , well		Casing (below ground) Seal		
 - 8 -	10	1 2 1 1	7.8	SM		fine to coarse SAND, 25% fine to coarse grave silt, (7.5YR 3/4) dark brown, non plastic, loose, to wet, no odor, no staining, angular, well grade	moist	RS-SB3- 111513	<b>←</b> Filter pack		
 10_	11	3 9 9 8	0.7	SP MLS		9.4 SAND, trace silt trace coarse sand, (7.5YR 4/3 brown, non plastic, soft, wet, no odor, no staini poorly graded fine to medium sandy SILT, 25% fine to medium trace fine gravel, (7.5YR 5/1) gray, wet, no odo staining, poorly graded	ng, m sand		Screen		
— — —12—	288	7 16 16 10	0.3	SP		fine to medium SAND, 15% fine gravel trace si (7.5YR 4/3) brown, non plastic, soft, wet, no od staining, subrounded, poorly graded	lor, no				
_	16	12 21 24 22	0.2 NR	MLS BEDROCK		fine to medium sandy SILT, 25% fine to medium soft, were 13.0 (7.5YR 5/1) gray, non plastic, medium soft, were odor, no staining, poorly graded (5YR 5/2) reddish gray, SEVERELY WEATHER BEDROCK/SHALE	t, no				
						15.0 End of boring at 15.0 ft. bgs.			■ Base backfill		



## RS-MW4

Client	lient: Navy CLEAN						ocation: West corner of lot	Logged By: Andrew Sayre			
	WE4						lorthing: 158916.7 Easting: 378507.8		: GEOSEARCH, INC.		
		N6247011					Ground Elevation: 10.75 NAVD88	r Name/Lice			
		11/13/20			_		Orilling Method: Hollow Stem Auger		rilling Equipment:		
Finisi		11/18/2	013 12	:15:00 PM		Sa	Sampling Method: Split spoon	lotai	Deptn (π): 1	5.0 Depth to Water (ft): 6.0	
Depth (ft bgs)	Recovery Length (inches)	Blowcount(s)	Headspace	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS		Lab Sample	Well Diagram	
 2 _			3.0	SW			fine SAND, 15% silt 30% fine to coarse gravel, 4/3) brown, non plastic, dry, no odor, no staining			Casing	
_			3.0	ML	·/··/·/		fine silty SAND, 20% silt trace medium gravel, ( 4/3) brown, non plastic, soft, dry to slightly mois odor, no staining, well graded	10YR t, no		(below ground) Seal	
_	6	1 1 1 4	1.1	MLS			fine to medium sandy SILT, 40% fine to medium trace coarse gravel, (7.5YR 5/4) brown, non plamedium soft, moist to wet, no odor, no staining	n sand stic,	RS-SB4- 111813	¥	
8 -	18	6 9 10 20	1.7	SM			fine to coarse SAND, 30% silt 10% fine gravel, 4/4) reddish brown (7.5YR 5/4) brown, non plast very dense, dry to slightly moist, no odor no stail	tic,		<b>◄</b> Filter pack	
_ _10_	13	4 11 11 20	2.1	ML			fine to coarse SAND, 25% silt 30% fine to coarse gravel, (7.5YR 4/3) brown, non plastic, firm, wet odor, no staining, angular, well graded			Screen	
 12	13	8 9 12 8	2.3	ML			Same as above				
 14	11	11 14 13 14	2.1	SM			fine to medium silty SAND, (5Y 4/2) olive gray, hard, moist to wet, weathered shale	very		■ Base backfill	
-					<u> </u>	` <u>`</u>	End of boring at 15.0 ft. bgs.			<u> </u>	



# RS-MW5

Client: Navy CLEAN	Location: Southwest of dispensers	Logged By: And	ed By: Andrew Sayre			
CTO: WE40	<b>Northing:</b> 158851.2 <b>Easting:</b> 378523.3	Drilling Company	: GEOSEARCH, INC.			
Contract: N6247011D8013	Driller Name/Lice					
Start Date: 11/13/2013 1:59:00 PM	Drilling Method: Hollow Stem Auger	Drilling Equipment:				
Finish Date: 11/18/2013 9:45:00 AM	Sampling Method: Split spoon	Total Depth (ft): 1	5.0 Depth to Water (ft): 6.7			
Depth (ft bgs) Recovery Length (inches) Blowcount(s) Headspace USCS Code	Soil and Rock Description Classification Scheme: USCS	Lab Sample	Well Diagram			
	fine to coarse SAND, 10% fine to coarse gravel t silt, (10YR 4/3) brown, non plastic, dry, no odor, staining, subangular, well graded		Casing (below ground) Seal			
0.0 SWG	fine to coarse SAND, 10% fine to coarse gravel gravel, (10YR 4/3) brown, non plastic, dry, no od staining, subrounded, well graded	or, no				
-6- 12 4 116 SM  7 SM	fine to medium silty SAND, trace fine gravel 30% (10YR 5/2) grayish brown, non plastic, moist to v moderate petroleum odor, no staining fine to coarse SAND, 20% silt 10% fine gravel, (6/4) light brown, non plastic, very stiff to medium dense, dry to slightly moist, slight petroleum odo staining	vet, 7.5YR RS-SB5- 111813	<u>*</u>			
16 6 51.2 SM	fine to coarse SAND, 20% silt 10% fine gravel, (6/3) light reddish brown, non plastic dense, dry to slightly moist, slight petroleum odor, iron oxide staining	SYR D	Filter pack			
16 7 2.2 SM	fine silty SAND, (5YR 6/4) light reddish brown, no plastic, very stiff, slightly moist, no odor, iron oxid staining, SEVERELY WEATHERED SHALE		Screen			
6 100/5" 1.3 SM	fine silty SAND, some rock fragments, (5YR 6/4) reddish brown, non plastic, very stiff to hard, slig moist, no odor, iron oxide staining, angular, poor graded	htly				
7 100/4" 2.4 SM	Same as above, bottom 0.3' light gray posible be	edrock	- Base backfill			
	End of boring at 15.0 ft. bgs.					



# RS-MW6

CTO: WE-FORM   Notation   158778.5   Easting: 378602.6   Orling Company: GEOSEARCH, INC.	Client	t: Na	y CLEAN				Location: Behind building Logge			.ogged By: Tom Croft			
Start Date: 11/13/2013 10:27:00 PM   Sampling Method: Hollow Stem Auger   Total Depth (#t): 20.0   Depth to Water (#t):	сто:	WE4	.0				<b>Northing:</b> 158778.5 <b>Easting:</b> 378602.6	Drilling	g Company	y: (	GEOS	SEARCH, INC.	
Finish   Date: 11/14/2013 10:27:00 AM   Sampling Method: Split spoon   Total Depth (ft): 20.0   Depth to Water (ft):											#:		
Soil and Rock Description												-41- 4- W-4 (ft)- 40 (	
fine to coarse GRAVEL, 40% fine to medium sand 10% slit, (dry R.5/1) graded  19	Finisi	_	11/14/2	013 10	0:27:00 AM		Sampling Method: Split spoon	ı otal ı	Jeptn (π):	20.0	Del	otn to water (π): 10.2	
10% silt. (10YR 5/1) gray, non plastic, dry, no odor, no staining, angular, well graded  3.0 fine silty SAND, 30% silt trace medium sand, (10YR 5/4) yellowish brown, non plastic, dry to slightly moist, no odor, no staining, poorly graded  5.0 fine to medium sandy SILT, trace coarse sand, (5YR 74/3) reddish brown, non plastic medium soft, moist to wet, no odor, no staining, poorly graded with the coarse silty SAND, 20% fine gravel, (10YR 5/2) grayish brown, non plastic, stiff, slightly moist, no odor, no staining, poorly graded fine to coarse silty SAND, 20% fine to coarse gilty SAND, 20% fine to coarse gilty SAND, 20% fine to coarse gilty SAND, 20% silt 20% fine to coarse gilty SAND, 20% silt 20% fine to coarse gilty SAND, 30% silt 20% fine to coarse gilty	Depth (ft bgs)	Recovery Lengt (inches)	Blowcount(s)	Headspace	USCS Code	Graphic			Lab Sample			Well Diagram	
5/4) yelfowish brown, non plastic, dry to slightly moist, no odor, no staining, poorly graded  19	 -2-			0.0	GWS		10% silt, (10YR 5/1) gray, non plastic, dry, no odo						
19	- 4 <del>-</del>	-		0.0	SW	<u>// / /</u>	5/4) yellowish brown, non plastic, dry to slightly mono odor, no staining, poorly graded						
wet, no odor, no staining, poorly graded fine to coarse silty SAND, 20% fine to coarse gravel, (10YR 5/2) grayish brown, non plastic, stiff, slightly moist, no odor, no staining fine to coarse silty SAND, 30% silt 20% fine to coarse gravel, (2.5YR 4/3) reddish brown, non plastic, stiff, dry to slightly moist, no odor, no staining, well graded  22	_	19		2.9	MLS		fine to medium sandy SILT, trace coarse sand, (5					(below	
19 22 23 10.1 SM fine to coarse silty SAND, 30% silt 20% fine to coarse gravel, (2.5YR 4/3) reddish brown (5YR 5/1) gray (10YR 3/2) very dark grayish brown, non plastic, stiff, dry to slightly moist, no odor, no staining, well graded 9.0 fine to coarse silty SAND, 30% silt 25% fine to coarse gravel, (5YR 5/2) reddish gray, non plastic, stiff, dry to slightly moist, no odor, no staining, well graded 11.0 Same as above, with a moist to wet fine SAND layer from 11.7-12'  20 60 63 100/4"  24 23 0.9 SM Same as above, with a moist to wet fine SAND layer from 11.7-12'  33.0 fine to coarse silty SAND, 30% silt 15% fine gravel, (5YR 7/1) light gray, non plastic, very stiff to dense, moist to wet, no odor, no staining, well graded  Filter pack  Filter pack	- 6		22	0.8	SM		wet, no odor, no staining, poorly graded fine to coarse silty SAND, 20% fine gravel, (10YR grayish brown, non plastic, stiff, slightly moist, no	2 5/2)				ground)	
fine to coarse silty SAND, 30% silt 25% fine to coarse gravel, (5YR 5/2) reddish gray, non plastic, stiff, dry to slightly moist, no odor, no staining, well graded  11.0  Same as above, with a moist to wet fine SAND layer from 11.7-12'  13.0  Same as above, with a moist to wet fine gravel, (5YR 7/1) light gray, non plastic, very stiff to dense, moist to wet, no odor, no staining, well graded  15.0  Wet, Same as above  Screen	- 8 -	19	23 25	10.1	SM		fine to coarse silty SAND, 30% silt 20% fine to coarse gravel, (2.5YR 4/3) reddish brown (5YR 5/1) gray (10YR 3/2) very dark grayish brown, non plastic, s dry to slightly moist, no odor, no staining, well grades.	stiff,				<b>⋖</b> Seal	
Same as above, with a moist to wet fine SAND layer from 11.7-12'  24 23 0.9 SM  fine to coarse silty SAND, 30% silt 15% fine gravel, (5YR 7/1) light gray, non plastic, very stiff to dense, moist to wet, no odor, no staining, well graded  12 20 1.2 SM  wet, Same as above  Filter pack  Screen	 -10-	22	12 23	1.8	SM		fine to coarse silty SAND, 30% silt 25% fine to coarse gravel, (5YR 5/2) reddish gray, non plastic, stiff, d slightly moist, no odor, no staining, well graded					Ā	
The second of th	 -12-	20	63	1.3	SM		Same as above, with a moist to wet fine SAND lay from 11.7-12'	yer					
12 20 1.2 SM wet, Same as above	 -14-	24	25 43	0.9	SM		fine to coarse silty SAND, 30% silt 15% fine grave (5YR 7/1) light gray, non plastic, very stiff to dense moist to wet, no odor, no staining, well graded	el, ee,				<b>⋖</b> Filter pack	
	 _16_ 	12	59	1.2	SM							Screen	
18 12 34 100/5" 0.5 BEDROCK highly weathered bedrock, possible shale.		12		0.5	BEDROCK		highly weathered bedrock, possible shale.						
End of boring at 20.0 ft. bgs.	-20-	1	<u> </u>	I	I					[, • .	<u></u> 1. · . i		



# RS-MW7

Client	: Nav	y CLEAN				Location: WNW of dispensers, across street Log	gged By: Andrew Sayre			
сто:	WE4	0				<b>Northing:</b> 158994.4 <b>Easting:</b> 378519.8 <b>Drill</b>	Iling Company: GEOSEARCH, INC.			
		N6247011					er Name/Lice			
		11/13/20			_		ling Equipment:			
Finish		11/14/2	013 11	:13:00 AM		Sampling Method: Split spoon Total	al Depth (ft):	15.0 <b>Depth to Water (ft):</b> 3.5		
Depth (ft bgs)	Recovery Length (inches)	Blowcount(s)	Headspace	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample	Well Diagram		
 			2.2	SW		fine to coarse SAND, 20% fine to coarse gravel trace silt, (10YR 5/2) grayish brown, (5Y 2.5/2) black, non plastic, dry, no odor, no staining, subangular, well graded		Casing (below ground) Seal		
- 4 - 			2.1	ML	<u> </u>	fine to coarse silty SAND, 20% silt 15% fine to coarse gravel, (10R 2.5/2) very dusky red, (5YR 6/1) gray (10YR 6/1) gray, non plastic, slightly moist to moist, no odor, no staining, subangular, well graded	:			
— 6 —	24	1 2 4 8	2.3	MLS		fine sandy SILT, 40% fine to medium sand little roots (10YR 3/3) dark brown, non plastic, soft, dry, no odor no staining  6.1  fine sandy SILT, 40% fine sand trace medium sand, (10YR 5/1) gray, non plastic, dry, no odor, no staining				
<u> </u>	22	6	2.0	MLS		in 17.0 fine to medium sandy SILT, trace coarse gravel,				
<b>- 8 -</b>		6 10 11	2.0	MLS		7.4 (10YR 4/1) dark gray, non plastic, soft, dry, no odor, no staining, angular, well graded  8.2 fine sandy SILT, trace coarse sand trace fine gravel, (10YR 5/1) gray, non plastic, firm, moist to moist, no				
	17	9 10 12 10	3.4	SP MLS		odor, no staining, poorly graded  go fine to medium SAND, trace silt, (2.5YR 6/3) light reddish brown, non plastic, very soft, wet, no odor, no staining  fine to medium sandy SILT, 40% fine to medium sand trace coarse sand, (5YR 5/2) reddish gray, non plastic, medium dense, moist to wet, no odor, no staining, poorly graded		Filter pack Screen		
	18	11 8	1.2	SWG		fine to coarse gravelly SAND, 10% fine gravel trace silt, (7.5YR 5/1) gray, non plastic, soft, wet, no odor,				
12		12 11	1.9	MLS		no staining, subangular, well graded fine to medium sandy SILT, 25% fine to medium sand trace coarse sand, (10YR 6/2) light brownish gray, moist to wet, no odor, no staining				
— — —14—	18	9 10 8 11	1.7	MLS		fine to medium sandy SILT, 25% fine to medium sand trace coarse sand, (10YR 6/2) light brownish gray, moist to wet, no odor, no staining				
						∷   ∷ 15.0 End of boring at 15.0 ft. bgs.		Base backfill		



# RS-MW8

Client: Navy CLEAN						Location: WNW of tank pad, across street Logg			.ogged By: Andrew Sayre			
сто:	WE4	0				<b>Northing:</b> 158987.9 <b>Easting:</b> 378595.0	Drillin	Drilling Company: GEOSEARCH, INC.				
		N6247011				Ground Elevation: 7.91 NAVD88		r Name/Lice				
		11/13/20				Drilling Method: Hollow Stem Auger	-	rilling Equipment:				
Finish		11/14/2	013 10	):27:00 AM		Sampling Method: Split spoon	Total	Depth (ft): 1	5.0 Depth to Water (ft): 3.1			
Depth (ft bgs)	Recovery Length (inches)	Blowcount(s)	Headspace	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		Lab Sample	Well Diagram			
 _ 2 _			2.2	SW		fine to coarse SAND, 10% fine to coarse gravel silt, (10YR 5/3) brown, non plastic, dry, no odor, staining, subrounded, well graded			Casing (below ground) Seal			
—			1.3	ML NSNR		medium sandy SILT, 35% fine to medium sand fine gravel, (10YR 5/1) gray, non plastic, wet, no no staining						
	10	1 3	0.8	SM		fine SAND, 30% silt trace medium sand, (10YR						
— 6 —		1				grayish brown, non plastic, soft, wet, no odor, no staining, poorly graded	J	RS-SB8- 111413				
	16	1	NR	MLS		fine to medium sandy SILT, trace fine gravel tra- roots, (7.5YR 3/2) dark brown (10YR 3/3) dark b						
— 8 —		2 11	_	MLS SP		non plastic, soft, moist, no odor, no staining, pool graded fine sandy SILT, trace medium sand trace roots (10YR 3/2) very dark grayish brown, non plastic wet, no odor, no staining, poorly graded	orly ,		<b>◄</b> Filter pack			
— — —10—	14	9 11 11 12	1.3	SM		fine to medium SAND, trace silt, (2.5Y 4/6) olive brown, non plastic, soft, wet, no odor, no stainin poorly graded fine to medium SAND, 20% silt 10% coarse san (2.5YR 7/3) light reddish brown (10YR 6/2) light brownish gray, non plastic, medium dense to de wet, no odor, no staining, poorly graded	g, id,		Screen			
L _				_		11.0						
12	24	15 13 13 17	1.7	SM		same as above  12.7  13.0 fine to coarse sandy SILT, 10% fine gravel, (10)	/R					
— —14—	13	5 5 14 13	1.1	MLS		5/1) gray, stiff, slightly moist, no odor, no stainin subangular, well graded fine to coarse sandy SILT, trace fine gravel, (10' 5/1) gray, moist to wet, no odor, no staining, and well graded, Bottom 0.3' highly weathered rock fragments	g, YR		■ Base backfill			
	'		1		•	End of boring at 15.0 ft. bgs.		-				

### Appendix D

Well/Piezometer Development Logs



Well/Piez. ID:	- 1
mw-1	

Client:	NAVSTA- WE	£ 40		Site Location	: NEX Service	Station	News	ort, R	I	
Project No	6030727	2	_Date:	11-19-13		Develope	Tom	. Croft		
WELL/PIE	ZOMETER DAT	ΓΑ								
Well 🔀		Piezomete	er 🔲		Diameter 2"			Material	PVC	
_	Point Description		top of 3.2	PVC n'ser		Geology a (if known)	at Screen Int	terval	Silty Sa	nd
Depth to I	op of Screen (ft.	.)	7.2		-1					
Depth to E	ottom of Screen	(ft.)	13.2	later devel	oom u. t		/ater Level N			1350
Total Well	Depth (ft.)		13.68	13.3		Calculate	1/f1 x √.2 Purge Volur	#3 #;≂ /./ me (gal.)	79<1 × 10 well	= 11.79e1.
Depth to S	Static Water Leve	el (ft.)	5.85		•0	Disposal I	Method	55 5	allow drum	
						Wellhead	PID/FID	not r	measure d	
Original M	ell Development			Redevelopm	ont $\square$	Data of O	riginal Deve			
Original W	eli Developineni	_				Date of O	nginai Deve			
DEVELOF	MENT METHO	D Wat	terna pu	mp with sur	rge block	PURGE N	IETHOD	Watern	a pump with	Check vilve
Field Testi	ing Equipment U	sed:			Make		odel		rial Number	
				- YS			56 20Q		10 mei 190 CO 12776	
				Па	Therrum		ration Reco	ard	10 (0) 1116	
Field Testi	ng Calibration D	ocumentati	ion Foun	d in Field Note	ebook#	F	Page #			
Initial	turbidity =	495 NT	4 Chec	ked with b	ailer	pur	mp on	91 14	108	
Time	Volumé Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	Other	Flow Rose Conclain
1430	4	15.20	6.59	498	>9,999	7.43	brown	none	Surge 6-7	800
1446	8	14.30	6.43	479	79,999	1.23	brown	nane	surge 8-9	1,000
1488	12	14.56	6.38	462	79,999	0.50	brown	none	Surge 10-11	2,000
1515	16	14.16	6.61	412	79.199	1.96	bram	none	surge 11-n	2,000
1530	20	16.06	655	416	>7,199	2.43	brown	Aou	SUMPL 12-13	2,000
									1	
									I.	-
	NCE CRITERIA Volume ( <u>10</u>			t gallons	Has required volu	me been r	emoved	Yes	No N/A	
Maximum	Turbidity Allowed	d NT			Has required turb	dity been !				
Stabilization	on of parameters	%			Have parameters					
					If no or N/A exp	naiii below	•			
Signature		1.								
	7	H					Date:			

3A/- II/D:	ID.	1.
well/Plez.	יטו:	HW2
		1100 -



Client:	NEXNAVN	JAVY CLE	AN	Site Location	HEX NAV	STA N	EWPOR	TRI		
Project No	603072	72	Date:	11/19/13	-	Developer	Andre	w S	eyre	
WELL/PIE	ZOMETER DAT	A							7.0	
Well 🔯		Piezomete	r 🔲		Diameter 2"			Material	PUC	
Measuring	Point Descriptio	n	top	of PVC	57	Geology a	t Screen Inte	erval	Sundy:	silt
Depth to 7	op of Screen (ft.	)	1	+	-	(if known)				
Depth to E	Bottom of Screen	(ft.)	14		-	Time of W	ater Level M	leasureme	ent	1400
Total Well	Depth (ft.)		13.	21	-1	Calculate	Purge Volun	ne (gal.)		13 gal
Depth to S	Static Water Leve	el (ft.)	5.	60	-1	Disposal N	/lethod	dou	in	
						Wellhead	PID/FID	_		
Original W	/ell Development			Redevelopm	ent 🔲	Date of O	iginal Devel	opment _		
DEVELO	PMENT METHO	v د	vater	Loumo, s	surge block, reckateline	PURGE N	IETHOD	- Science		
Field Test	ing Equipment U	sed:			rec Kwerlve Make	М	odel	Seri	al Number	
Field Test	ing Calibration D	ocumentati	on Found		ebook#		Page #		_	
Time	Volume Removed (gal)	T° (C/F)	рH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	Rate(n1/n	(m)
1407	10 /	1			567				73	1
1433	4	14.93	6.83	892	above limits	2.95	biown	_	500	
145 3	8	14.90	6.92	929		7.60	Sancun		1400	1
1516	12	15,40				1183	inoun	_	600	1
1536	16	16.43	7.0	954		0.37	brain		1100	
Min. Purge Maximum	ANCE CRITERIA e Volume ( Turbidity Allowed on of parameters	well volume	es)	gallons	Has required volu Has required turb Have parameters If no or N/A ex	idity been i stabilized	reached	Yes	No N/A	
Signature	All	1	Son	Lin		1	Date:	11/14	1/13	



Well/Piez.	ID:	
	WW	-3

. 5,500 140	6030727			11:11	Y		Andr		Sayre	
VELL/PIE	ZOMETER DAT	'A							2.15	
Vell 🏋		Piezomete	r 🔲		Diameter 2 "			Material	PVC	-3
_	Point Description			of PVC		Geology a (if known)	t Screen Inte	erval	silty se	nd
-	op of Screen (ft.	_	14 +		•	Time of 100	f=4== 1 =+== 1 B.4			
	Sottom of Screen	(ft.) As					ater Level M		ent	70
otal Well	Depth (ft.)			H 13.6	74	Calculate	Purge Volum	e (gal.)		-
epth to S	Static Water Leve	el (ft.)	6.	37		Disposal N	Method	Drun	n	
			DTB 13	3.60		Wellhead	PID/FID			
Original W	ell Development			Redevelopme	ent 🗆	Date of O	riginal Develo	pment		
_			10/24	era Pum					M. Carlo	11
EVELOP	MENT METHO	,	V 0 0010	ATK TOO	P	PURGE N	ETHOD (	Natera	ial Number	surge b
eld Testi	ing Equipment U	sed:		1	Make	М	odel	Ser	ial Number	check ou
ield Testi	ing Calibration D	ocumentati	on Found	d in Field Note	ebook #		Page#		4	=
Time	volume Removed (gal)	T° (C/F)	pН	Spec. Cond (umhos)	Turbidity (NTUs)	DO DO	Page #	Odor	ilate Other	on / min
Time ゆがひ	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color		Other	on / min
Time	Volume Removed (gal)	T° (C/F) +5.54 15.54	pH 6.14	Spec. Cond (umhos)	Turbidity (NTUs)	DO 5.45	Color		Other \$50	on /min
Time 1050 1123	Volume Removed (gal)	T° (C/F) +5.54 15.54	pH 6.19 6.14 6.22	Spec. Cond (umhos) (OGC) (OGC)	Turbidity (NTUs)	DO 5.45 5.66	Color brown		850 1300	onl/min
Time   050   (123   1-11   200	Volume Removed (gal)	T° (C/F) +5.54 15.54	pH 6.14 6.14 6.22 6.22	Spec. Cond (umhos) 1060 1060 1054 1030	Turbidity (NTUs)	5.45 5.66 5.23	Color brown brown	_	Other \$50	onl/min
Time 1050 1123 1-11 200	Volume Removed (gal)	T° (C/F) +5.34 15.54 15.46 15.65	pH 6.14 6.14 6.22 6.22	Spec. Cond (umhos) 1060 1060 1054 1030 1007	Turbidity (NTUs)	DO 5.45 5.66	Color brown		950 1300 700	onl/min
Time 1050 1123 1-11 200	Volume Removed (gal)	T° (C/F) +5.34 15.54 15.16 15.65 15.70	pH 6.14 6.14 6.22 6.22	Spec. Cond (umhos)  1060  1060  1054  1030  1007	Turbidity (NTUs)	DO 5.45 5.66 5.23 4.7-0	Color brown brown brown		950 1300 700 1000	on /min
Time   050   (123   114   200	Volume Removed (gal)	T° (C/F) +5.34 15.54 15.16 15.65 15.70	pH 6.14 6.14 6.22 6.22	Spec. Cond (umhos)  1060  1060  1054  1030  1007	Turbidity (NTUs)	DO 5.45 5.66 5.23 4.7-0	Color brown brown brown	-	950 1300 700 1000	on I mi n
Time 1050 1123 1111 200	Volume Removed (gal)	T° (C/F) +5.34 15.54 15.16 15.65 15.70	pH 6.14 6.14 6.22 6.22	Spec. Cond (umhos)  1060  1060  1054  1030  1007	Turbidity (NTUs)	DO 5.45 5.66 5.23 4.7-0	Color brown brown brown	-	950 1300 700 1000	on I fact or
Time 1050 1123 1141 200 240	Volume Removed (gal)	T° (C/F)  +5.34  15.54  15.46  15.45  15.89	pH 6.19 6.14 6.22 6.22 6.22 6.22	Spec. Cond (umhos)  1060  1060  1054  1030  1007	Turbidity (NTUs)	DO 5.45 5.66 5.23 4.7-0	Color brown brown brown		0ther  \$50 1300 700 1000 900	on /min
Time  DTO  (123  1141  200  240  Z40  CCEPTA  lin. Purge  laximum	Volume Removed (gal)	T° (C/F)  +5.34  15.54  15.65  15.89  (from wor well volumedNT	pH 6.19 6.14 6.22 6.22 6.22 6.24 kplan)	Spec. Cond (umhos)  1060  1060  1054  1030  1007	Turbidity (NTUs) 13.1  Abuse limet  Has required voluthas required turb Have parameters If no or N/A ext	5.45 5.66 5.23 4.70 4.70 4.70 stabilized	Color  brown  brown  brown  brown  brown		950 1300 700 1000	onl/mix
Time  D50  [123  1141  200  240  240  CCEPTA  in. Purgelaximum	Volume Removed (gal)  1 1 2 17 2 Volume Volu	T° (C/F)  +5.34  15.54  15.65  15.89  (from wor well volumedNT	pH 6.19 6.14 6.22 6.22 6.22 6.24 kplan)	Spec. Cond (umhos)  1060  1060  1054  1030  1007  1000	Turbidity (NTUs) 13.1  Abuse limit  Has required volus required turb have parameters	5.45 5.66 5.23 4.70 4.70 4.70 stabilized	Color  brown  brown  brown  brown  brown		0ther  \$50 1300 700 1000 900	ont/mix
Time  D50  [123  1141  200  240  Z40  CCEPTA  lin. Purgelaximum	Volume Removed (gal)  1 1 2 17 2 Volume Volu	T° (C/F)  +5.34  15.54  15.65  15.89  (from wor well volumedNT	pH 6.19 6.14 6.22 6.22 6.22 6.24 kplan)	Spec. Cond (umhos)  1060  1060  1054  1030  1007  1000	Turbidity (NTUs) 13.1  Abuse limet  Has required voluthas required turb Have parameters If no or N/A ext	5.45 5.66 5.23 4.70 4.70 4.70 stabilized	Color  brown  brown  brown  brown  brown		0ther  \$50 1300 700 1000 900	on froit o

Well/Piez. ID:	MM	4
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Client:	NAVY Clea	un	_ %	Site Location	NEX NA	NSTA A	JEWPOR	TRI		
Project No	603047		_Date:	11/20/13		Developer	Andre	v Sa	yre	-
WELL/PIE	ZOMETER DAT	T <b>A</b>			71				Dayse	4
Well 💢		Piezomete	_		Diameter 2	-		No and Park	VC.	2
Measuring	Point Description	on	TUP	of five 3.35	- 1	(if known)	Screen Line		silly si	WD_
Depth to T	Top of Screen (ff.			3.35		,				_
Depth to E	Bottom of Screen	(ft.)		4 13 35	<b>(3)</b>	Time of W	ater Level M	<b>a</b> sure <b>m</b> e	ent	0930 12 gal
Total Well	Depth (ft.)		13	3,35		Calculate I	Pur <b>ge</b> Volum	e (gal.)		12 gal
Depth to S	Static Water Leve	el (ft.)	6.1	9(	2	Disposał N	lethod	Drw	m	
						Wellhead i	PID/FID			
Original W	/ell Development	t [X		Redevelopm	cm _	Date of Or	iginal Develo	pement _	11/20/13	
DEVELOR	PMENT METHO	D	Water	una pun	wwt.					
Field Test	ing Equipment U	lsed:	Surg	e black t	p wit cheek value Make	Mo	odel	Seria	al Number	
100		-	7							_
F:-14 T4	:	4 . 4:	, F	d in Field Nete	-h		#			7
rieid Test	ing Calibration D	rocumentati	on Found	in Field Note	ebook #		age #		- 1	
	Volume			Spec. Cond					Vate	Ť
Time	Removed (gal)	T° (C/F)	_ pH	(umhos)	Turbidity (NTUs)	DO	Color	Odor	-Other	₫.
0936		13.11	6.29	(3)	18.6					1
1032	14	13.11	6.79	1048	Aborling		Brown		1100	
1108	8	15.62	6.24	1021		3.09	brown	-	750	
1127	12	16.02	6.22	1003	1	B. 1:45	b.roun		1300	-
										4
Min. Purge Maximum	ANCE CRITERIA Volume ( Turbidity Allowed on of parameters	well volume	es)	_gallons	Has required volu Has required turb Have parameters If no or N/A exp	idity been r	eached	Yes	No N/A	
Signature						0	Date:			



Vell/Piez.	ID:	
	MW-5	

Project No	0: 6030 7272		_Date:	11-20-13 4-19-13		Develope	Tan	Croft		
VELLIPII	EZOMETER DAT	Ά.								
<b>v</b> ell 🔽		Piezomete	er 🗌		Diameter 2 1			Material	PVC	
/leasurinç	g Point Descriptio	n .	•	of PUC risi	د	Geology a	at Screen In	terval	Siltysan	J
epth to	Top of Screen (ft.)	)	3.2			` ,			_	
epth to E	Bottom of Screen	(ft.)	13.2	1 after a	Levelogman	Time of W	/ater Level I	Measurem <i>5.69 H</i>	ent = 0.92 541 X 10 wn Voi	1015
otal Well	Depth (ft.)		12.28	/ 13.26		Calculate	Purge Volu	me (gal.)	X 10 wal Val	luines a 9.
epth to	Static Water Leve	el (ft.)	<u></u>	.69		Disposal I	Method	55 jalla	n drum	
						Wellhead	PID/FID		Maasured	
riginal V	Vell Development	. I√		Redevelopm	ent 🗍	Date of O	riginal Deve	lopment		
_			A							
EVELO	PMENT METHOD	) Waterra	puny w	in Surge block	<u>a</u>	PURGE N	METHOD "	OG WIE	imp with check	h value
ield Test	ting Equipment U	sed:		Ys.	Make T		lodel F6		rial Number <i>Fjomol</i>	
				Ha					<u> </u>	-
ield Test	ting Calibration De	ocumentat	ion Foun	•			Page #		10 CO   ZZZ 16	
itial tur	Volume	wry Cohe	ched wit	d in Field Note	ebook# Instru	ment Calib	Page # Rece	~ l	_	- ] flow
itial tur Time	Volume Removed (gal)	Www. Cohe T° (C/F)	pH	id in Field Note	Ebook # Instru	ment Calib	Page # Reco	Odor	Other	Cm
Time	Volume	wry Cohe	ched wit	sid in Field Note  Spec. Cond (umhos)	ebook# Instru	ment Calib	Page # Rece	~ l	_	700 1,000
Time low	Volume Removed (gal)	15.58 15.70 16.15	pH 6.63 6.62	Spec. Cond (umhos) 802 813	Turbidity (NTUs) 79,999 79,991	DO 2.05 2.06	Color brown	Odor nan nan	Other Sunge 7-8' Sunge 8-9' Sunge 8-10'	700 1,000
Time lo46	Volume Removed (gal)	15.58 15.70	pH 6.63	Spec. Cond (umhos) 802	Turbidity (NTUs) 79,999 79,999	med Calib med on DO 2.05 2.06	Color brown	Odor nan	Other Surge 7-8' Surge 8-9'	700 1,000
Time low	Volume Removed (gal)	15.58 15.70 16.15	pH 6.63 6.62	Spec. Cond (umhos) 802 813	Turbidity (NTUs) 79,999 79,991	DO 2.05 2.06	Color brown	Odor nan nan	Other Sunge 7-8' Sunge 8-9' Sunge 8-10'	700 1,000 1,100
Time low	Volume Removed (gal)	15.58 15.70 16.15	pH 6.63 6.62	Spec. Cond (umhos) 802 813	Turbidity (NTUs) 79,999 79,991	DO 2.05 2.06	Color brown	Odor nan nan	Other Sunge 7-8' Sunge 8-9' Sunge 8-10'	700 1,000
Time low low NV8	Volume Removed (gal)	T° (C/F)  15.58  15.40  15.41  (from wo	pH 6.63 6.62 6.62 6.79 6.79	Spec. Cond (umhos) 802 813 814 851	Turbidity (NTUs) 79,999 79,991	DO 2.05 2.06 1.26 1.36	Color brown brown	Odor nan nan	Other Sunge 7-8' Sunge 8-9' Sunge 8-10' Sunge 13-12	700 1,000 1,100
Time low low NV8	Volume Removed (gal)  4  8  11  10  ANCE CRITERIA le Volume (_/e  Turbidity Allowed	T° (C/F)  15.58  15.40  15.41  (from wo	pH 6.63 6.62 6.62 6.79 6.79	Spec. Cond (umhos) 802 813 814 851	Turbidity (NTUs)  79,999  79,999  79,999  79,999  Has required volu Has required turb Have parameters	DO 2.05 2.06 1.26 1.36	Color brown brown	Odor Nahe 1 am n ohe Nahe	Other Surge 7-8' Surge 8-9' Surge 8-10' Surge 13-12	flow 700 1,000 1,100
Time low low NV8	Volume Removed (gal)  4  8  11  10  ANCE CRITERIA le Volume (_/e  Turbidity Allowed	T° (C/F)  15.58  15.40  15.41  (from wo	pH 6.63 6.62 6.62 6.79 6.79	Spec. Cond (umhos) 802 813 814 851	Turbidity (NTUs)  79,999  79,999  79,999  79,999  Has required volu Has required turb Have parameters	DO 2.05 2.06 1.26 1.36	Color brown brown	Odor Nahe 1 am n ohe Nahe	Other Surge 7-8' Surge 8-9' Surge 8-10' Surge 13-12	700 1,000



Well/Piez.	ID:	w-6	
		VV	

Client: NAVSTA Site Location: NEX Service Station, New part RI WE 40 11-19-13 Project No: **WELL/PIEZOMETER DATA** Diameter\_\_ 2 ~ Material Piezometer Well 🔀 top of pur riser Geology at Screen Interval Measuring Point Description (if known) Depth to Top of Screen (ft.) Time of Water Level Measurement Depth to Bottom of Screen (ft.) 0.162 gal/H x 8.24 ftz 1.33 jel x 10 well rolumes = 13.3 se Calculate Purge Volume (gal.) Total Well Depth (ft.) 10.19 35 gallon drum Depth to Static Water Level (ft.) Disposal Method Wellhead PID/FID Not measured Original Well Development Redevelopment Date of Original Development **DEVELOPMENT METHOD PURGE METHOD** Waterra pump with check value Serial Number Field Testing Equipment Used: Make Model 10 F 10 moi 556 110906012226 2100Q Field Testing Calibration Documentation Found in Field Notebook # Trestrument Calibration Record Pane # two dity = 2.56 was (checked with bailer fromp on at 1104 Volume Spec. Cond Flow Rosel me hain) Turbidity (NTUs) Time Removed (gal) T° (C/F) pH (umhos) DO Color Odor Other 1122 14.61 4.89 442 > 4 9,999 5.11 brown none Surge 11-12' 600 1146 8 4.41 440 7 9,999 4.71 gray brown surge 13-14' 500 14.75 none 1218 7.02 447 > 9,999 C-86 400 12 13.92 surge 15-10 none 1238 444 6.95 7 9,999 7.52 14 15.41 350 none swel 17-18 7.00 15.09 446 300 16 7 9,999 7.82 9 124 home surge 19-20 **ACCEPTANCE CRITERIA (from workplan)** Min. Purge Volume ( 10 well volumes) 133 gallons Has required volume been removed Maximum Turbidity Allowed \_\_\_\_\_ NTUs Has required turbidity been reached Stabilization of parameters \_\_\_\_ Have parameters stabilized If no or N/A explain below: Signature \_\_\_\_ Tom Coff 11-19-13 Date:

Well/Piezometer Development Record

Well/Piez. ID:

Client:	NAYY CI	ean		Site Location	NEX NA	ISTA 1	JEWPO	RT RI		
Project No	: 60307		Date:	11/18/13		Developer	Andre	w Say	/re	
WELL/PIE	ZOMETER DATA	A								
Well 🔀	-	Piezomete	r 🔲		Diameter 2"			Material	PUC	
Measuring	Point Description	n ·	top e	of PVC 2.89			Screen Inte	erval	-S.H. c.	
Depth to T	op of Screen (ft.)			2.89		(if known)			silty son	9
Depth to B	ottom of Screen	(ft.)	(2	2.89		Time of Wa	ater Level M	easureme	ent	
Total Well	Depth (ft.)		17	2.89		Calculate f	Purge Volum	ne (gal.)		
Depth to S	tatic Water Leve	l (ft.)				Disposal M	lethod			
						Wellhead F	PID/FID			
Original W	ell Development			Redevelopme				opment 1	1/18/13	
	MENT METHOD		,	•		PURGE M				
	ng Equipment Us	sed:	block	a pump	. W surge Make		odel	Seri	al Number	
Field Testi	Volume		on Found	Spec. Cond		P		Odes	Volu flow	rate
13/0	Removed (gal)	1 (0/1-)	рп	(umhos)	Turbidity (NTUs)	DO	Color brown	Odor	Other	
1325	84	17.80	676	838	14-21	3.80	1	1	(100	h
1333	+84	17.62	6.78	875		7.46			700	
147	138	18.72	6.66	874		1.77			950	
1133	(A) 47 13	1887	6.47	847		0.97			1500	
1457	21 17	18.76		881		1.08		-1-	600	
1457	21	18.60	6.31	860	V	2. HLY	D V	<b>→</b>	800	
	46									
Min. Purge Maximum	NGE CRITERIA Volume ( v Turbidity Allowed on of parameters	well volume	es)	_gallons	Has required volu Has required turbi Have parameters If no or N/A exp	idity been re stabilized	eached	Yes U	No N/A	
		1	0							
Signature	11.1	/	X				Date:	11/18	13	



Well/Piez. ID: mw-g

easuring	ZOMETER DAT	- A				Develope				
easuring		A								
_		Piezomete	er 🗀		Diameter 2 ~			Material	PVC	
epth to To	Point Description	on	top of	Puc risur		Geology a	at Screen In	terval	_ Sitty Son	d
	op of Screen (ft.	)	3.2	-		(II KIIOWII)				
epth to B	ottom of Screen	(ft.)	13.2			Time of V	/ater Level I	Measurem	ent	125
otal Well	Depth (ft.)		13.22	13.29	relapment	و Calculate	دا (الإنها)، 4. Purge Volu	z <i><del>11 = <u>/</u>51</del></i> me (gal.)	gal × lowell	سى اص
epth to Si	tatic Water Leve	el (ft.)	3.	50	-	Disposal			gellon drum	
						Wellhead	PID/FID		t measured	
riginal W	ell Development	: 🔯		Redevelopm	ent 🗀	Date of O	riginal Deve	lopment		
<b>EVELOP</b>	MENT METHO	) Watern	pumo.	with svige G	lock				amy with chac	k di
		_		<u>στη (στρ</u> σ				- CALDIA P	our cour	00/0
ald Tastin	Fauir	a = al.			Mala					
eld Testir	ng Equipment U	sed:			Make V <i>c</i>		lodel H		rial Number	
	ng Equipment U ng Calibration D		on Foun	H ach	YSI	2100	SG Q other Pacon	1090	rial Number (Iomo) OCO(2226	-
eld Testir	ng Calibration D	ocumentati		d in Field Note	YSI ebook# Instrume	2100 2100 A Celiba	Sto Q other Sucon Page #	10F	Jomol XOIZZZG	flow
	ng Calibration D  Volume Removed (gal)	ocumentati T° (C/F)	рН	d in Field Note Spec. Cond (umhos)	YSI  Pebook # Instrume  Turbidity (NTUs)	5 2100 nd (clibn	Color	lof 1/090 rd	Other	- (me
eld Testir Time	ng Calibration D	ocumentati T° (C/F) (3.25	pH 8.31	Spec. Cond (umhos)	YSI  Pebook # Instrume  Turbidity (NTUs)  > 9,999	5 2,00 2,100 0,00 0,00 0,00 0,00 0,00 0,0	Sto Q other Sucon Page #	10F	Other	(me
eld Testir Time	No Calibration D  Volume Removed (gal)	ocumentati T° (C/F)	рН	d in Field Note Spec. Cond (umhos)	YSI  Pebook # Instrume  Turbidity (NTUs)	5 2,00 .nd (clibn DO 5,69 4,55	Color	lof 1/090 rd	Other  500 5-6-  500 7-8-	- (me
Time 1332 1355 1422 1434	Volume Removed (gal)  4  8  12	T° (C/F) (3.25 18.01 13.20 15.66	pH 8.31 7.91	Spec. Cond (umhos)	YSI  Pebook # Instrume  Turbidity (NTUs)  > 9,999  > 9,999	5 2,00 2,100 0,00 0,00 0,00 0,00 0,00 0,0	Color	lof 1/090 rd	Other	(me 400 800
Time 1332 1355	Volume Removed (gal)	T° (C/F) (3.25) 18.01 13.20	pH 8.31 7.91	Spec. Cond (umhos) 603 613	YSI  abook # Instrume  Turbidity (NTUs)  > 9,999  > 9,919  > 1,999	DO 5.69	Color	lof 1/090 rd	Other  Surge 7-8'  Surge 9-10'	900 800
Time 1332 1355 1422 1434	Volume Removed (gal)  4  8  12	T° (C/F) (3.25 18.01 13.20 15.66	pH 8.31 7.91 7.91 6.70	Spec. Cond (umhos) 603 613 617 573	YSI  abook # Instrume  Turbidity (NTUs)  > 9,999  > 9,999  > 9,999  > 9,999	DO 5.69 4.53	Color	lof 1/090 rd	Other  Surge 7-8'  surge 11-12'	800 800
Time 1332 1355 1422 1434	Volume Removed (gal)  4  8  12	T° (C/F) (3.25 18.01 13.20 15.66	pH 8.31 7.91 7.91 6.70	Spec. Cond (umhos) 603 613 617 573	YSI  abook # Instrume  Turbidity (NTUs)  > 9,999  > 9,999  > 9,999  > 9,999	DO 5.69 4.53	Color	lof 1/090 rd	Other  Surge 7-8'  surge 11-12'	800 800

### Appendix E

**Groundwater Sampling Collection Records** 



Event: WE40

Project No: 60307272

Well RS-MW1			11/20/2013 3:50 PM		Sample Duplicate	_			
Screen Top	4	ft bgs	Water Leve	el Date	11/20/201	3 2:50:00 PM			
Screen Bottom 14		ft bgs Water		el Depth	5.85	ft btoc			
Diameter	2	_ in _	Well Depth	n	13.32		ft btoc		
Time Measured	Depth To Water (ft)	DO (mg/	l) ORP (mv)	рН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)	
2:55 PM	5.85	0.33	-140.0	6.63	170	339	14.76	907	
3:00 PM	5.86	0.18	-187.0	6.61	175	339	14.97	486	
3:05 PM	5.86	0.15	-219.1	6.61	175	339	15.13	236	
3:10 PM	5.86	0.18	-193.8	6.61	175	339	14.85	204	
3:15 PM	5.86	0.27	-215.3	6.60	175	339	15.18	132	
3:20 PM	5.86	0.24	-259.0	6.59	175	339	15.12	104	
3:25 PM	5.86	0.20	-251.0	6.59	175	339	15.27	93.3	
3:30 PM	5.86	0.20	-258.0	6.58	175	339	15.26	63.5	
3:35 PM	5.86	0.16	-265.1	6.57	175	340	15.33	43.8	
3:40 PM	5.86	0.17	-264.3	6.58	175	340	15.19	41.0	
3:45 PM	5.86	0.17	-259.2	6.58	175	341	15.29	42.6	



Event: WE40

Project No: 60307272

Well RS-MW	<u>72</u>	Date 11 Time 3:	/20/2013 35 PM	_	Sample _ Duplicate _	_			
Screen Top	4	ft bgs	Water Le	vel Date	11/20/2013	3 2:52:00 PM			
Screen Bottom	14	ft bgs Water Le		vel Depth	Depth 5.61				
Diameter	2			th	12.5			ft btoc	
Time Measured	Depth To Water (ft)	DO (mg/l)	ORP (mv) pH		Purge Rate (ml/min)	Specific Conductance (mS/cm)	Conductance Temp.		
2:57 PM	5.61	0.22	105.6	6.90	180	965	15.18	218	
3:03 PM	5.62	0.19	44.0	6.90	180	966	15.18	148	
3:07 PM	5.61	0.21	-20.0	6.91	185	966	15.28	121	
3:12 PM	5.60	0.18	-73.2	6.91	180	966	15.03	90.8	
3:18 PM	5.61	0.18	-111.0	6.91	180	968	14.94	75.1	
3:22 PM	5.62	0.17	-111.2	6.92	170	966	14.94	58.1	
3:26 PM	5.60	.014	-113.8	6.92	170	968	15.01	59.1	
3:29 PM	5.61	0.18	-121.1	6.92	176	967	14.90	57.8	



Event: WE40

Project No: 60307272 Site Name NS NEWPORT NEX SERVICE STATION

Well RS-MV	V3	Date 11 Time 2:2		_	Sample ] Duplicate	RS-MW3-1120	13	_
Screen Top	4	ft bgs	Water Le	vel Date	11/20/2013	3 1:30:00 PM		
Screen Bottom	14	ft bgs	Water Le	vel Depth	6.38			ft btoc
Diameter	2	in	Well Dept	th	13.72			ft btoc
Time Measured	Depth To Water (ft)	DO (mg/l)	ORP (mv)	рН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)
1:55 PM	6.60	2.51	33.1	6.18	200	1024	14.63	201
2:00 PM	6.61	2.47	39.5	6.19	184	1013	14.59	131
2:04 PM	6.60	2.36	42.0	6.19	190	1010	14.74	120
2:08 PM	6.63	2.41	44.2	6.18	185	1006	14.79	61.1
	6.62	2.14	51.0	6.19	210	998	14.87	62.9
2:14 PM				6.19	210	997	14.77	61.2



Event: WE40

Project No: 60307272 Site Name NS NEWPORT NEX SERVICE STATION

Well RS-MV	W4	Date 11 Time 10		_	Sample Duplicate	RS-MW4-1121	13	_
Screen Top	4	ft bgs	Water Lev	vel Date	11/21/2013	3 9:54:00 AM		
Screen Bottom	14	ft bgs	Water Lev	vel Depth	5.95			ft btoc
Diameter	2	_ _ in _	Well Dept	th	13.3			ft btoc
Time Measured	Depth To Water (ft)	DO (mg/l)	ORP (mv)	pН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)
9:59 AM	5.97	0.90	-105.9	6.21	202	988	15.52	317
10:06 AM	5.96	0.56	-113.3	6.20	200	975	15.5	271
10:13 AM	5.96	0.54	-123.4	6.19	192	982	15.85	111
10:19 AM	5.95	0.43	-128.2	6.19	188	985	15.75	99.9
10:23 AM	5.95	0.40	-131.8	6.18	190	984	15.70	84.5
10:29 AM	5.95	0.34	-135.9	6.18	186	986	15.83	84.4
10:37 AM	5.95	0.58	-137.2	6.18	210	982	15.88	60.3
10:41 AM	5.95	0.48	-127.7	6.18	200	979	15.97	64.0
10:44 AM	5.95	0.46	-125.5	6.18	205	979	16.09	35.5
10:48 AM	5.95	0.36	-129.7	6.17	194	975	16.10	31.5
10:52 AM	5.96	0.56	-121.3	6.18	198	975	16.20	21.8
10:54 AM	5.95	0.52	-116.4	6.18	196	973	16.20	28.4

Total Purge Time 55 min Volume 10778 ml



Event:

WE40

Project No: 60307272

5		/21/2013	_	Sample	RS-MW5-1121		_
	111116 10	:35 AIVI	_	Duplicate	FD-GW-112113	)	
4	ft bgs	Water Lev	vel Date	11/21/20	13 9:50:00 AM		
14	ft bgs	Water Lev	vel Depth	6.69			ft btoc
2	in	Well Dept	:h	13.37			ft btoc
Depth To Water (ft)	DO (mg/l)	ORP (mv)	pН	Rate	Conductance	Temp. (C)	Turbidity (NTU)
6.69	2.55	-240.9	6.59	300	867	14.27	91.9
6.69	1.97	-230.2	6.58	250	863	14.02	92.4
6.69	1.77	-211.3	6.57	250	860	14.34	22.2
	0.49	-197.7	6.55	210	855	14.78	23.6
6.69	0.49	177.7	0.00				
	2 Depth To Water (ft) 6.69 6.69	Time 10  4 ft bgs 14 ft bgs 2 in  Depth To Water (ft) DO (mg/l) 6.69 2.55 6.69 1.97	Time 10:35 AM  4 ft bgs Water Lev 14 ft bgs Water Lev 2 in Well Dept  Depth To Water (ft) DO (mg/l) ORP (mv)  6.69 2.55 -240.9 6.69 1.97 -230.2	Time 10:35 AM  4 ft bgs Water Level Date 14 ft bgs Water Level Depth 2 in Well Depth  Depth To Water (ft) DO (mg/l) ORP (mv) pH  6.69 2.55 -240.9 6.59 6.69 1.97 -230.2 6.58	Time 10:35 AM Duplicate  4 ft bgs Water Level Date 11/21/20  14 ft bgs Water Level Depth 6.69  2 in Well Depth 13.37  Depth To Water (ft) DO (mg/l) ORP (mv) pH PH Rate (ml/min 6.69 2.55 -240.9 6.59 300 6.69 1.97 -230.2 6.58 250	Time 10:35 AM Duplicate FD-GW-112113  4 ft bgs Water Level Date 11/21/2013 9:50:00 AM  14 ft bgs Water Level Depth 6.69  2 in Well Depth 13.37  Depth To Water (ft) DO (mg/l) ORP (mv) pH Purge Rate (ml/min) Conductance (mS/cm)  6.69 2.55 -240.9 6.59 300 867  6.69 1.97 -230.2 6.58 250 863	Time 10:35 AM Duplicate FD-GW-112113  4 ft bgs Water Level Date 11/21/2013 9:50:00 AM  14 ft bgs Water Level Depth 6.69  2 in Well Depth 13.37  Depth To Water (ft) DO (mg/l) ORP (mv) pH Purge Rate (ml/min) (mS/cm) (C)  6.69 2.55 -240.9 6.59 300 867 14.27  6.69 1.97 -230.2 6.58 250 863 14.02



Event:

WE40

Project No: 60307272

Well RS-MV	<u>V6</u>	Date 11 Time 2:3	/20/2013 30 PM	-	Sample Ouplicate	RS-MW6-1120	13	_
Screen Top	10	ft bgs	Water Lev	el Date	11/20/201	3 2:00:00 PM		
Screen Bottom	20	ft bgs	Water Lev	el Depth	10.13			ft btoc
Diameter	2	in	Well Dept	h	19.31			ft btoc
Time Measured	Depth To Water (ft)	DO (mg/l)	ORP (mv)	рН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)
0 10 DM	10.31	5.04	-42.1	6.90	140	466	14.98	20.5
2:10 PM	10.01							
2:10 PM 2:15 PM	10.41	4.50	-72.0	6.88	140	463	15.08	17.2
		4.50 4.42	-72.0 -68.9	6.88 6.88	140 140	463 463	15.08 15.45	17.2 17.6



Event: WE40

Project No: 60307272

Well RS-MV	V 7	Date 11 Time 1:	/20/2013 10 PM	_	Sample - Duplicate -	RS-MW7-1120	13	_
Screen Top	4	ft bgs	Water Le	vel Date	11/20/2013	3 12:29:00 PM		
Screen Bottom	14	ft bgs	Water Le	vel Depth	3.5			ft btoc
Diameter	2	_ _ in _	Well Dept	th	12.91			ft btoc
Time Measured	Depth To Water (ft)	DO (mg/l)	ORP (mv)	рН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)
12:34 PM	3.70	0.28	153.1	6.17	144	883	17.68	137
12:38 PM	3.70	0.27	153.4	6.17	146	883	17.43	129
12:43 PM	3.70	0.26	165.8	6.17	144	887	17.16	80
12:49 PM	3.74	0.25	156.8	6.16	160	888	17.17	85.1
12:54 PM	3.75	0.23	155.7	6.15	165	892	17.25	55.8
12:58 PM	3.78	0.25	155.0	6.16	200	894	17.32	38.6
1:02 PM	3.84	0.24	156.0	6.16	205	895	17.40	43.778



Event: WE40

Project No: 60307272

Well RS-MV	V8		11/20/2013 1:00 PM		Sample Duplicate	RS-MW8-1120	13	_
Screen Top	4	ft bgs	Water Leve	el Date	11/20/201	3 12:06:00 PM		
Screen Bottom	14	ft bgs	Water Leve	el Depth	2.93			ft btoc
Diameter	2	in	Well Depth		13.28			ft btoc
Time Measured	Depth To Water (ft)	DO (mg/	l) ORP (mv)	рН	Purge Rate (ml/min)	Specific Conductance (mS/cm)	Temp. (C)	Turbidity (NTU)
12:20 PM	3.08	3.62	157.9	6.39	275	607	16.81	59.1
12:25 PM	3.08	3.56	163.8	6.33	270	606	16.45	51.9
12:30 PM	3.08	3.72	170.3	6.26	270	600	16.32	51.5
12:35 PM	3.08	3.74	177.6	6.22	270	598	16.81	36.8
12:40 PM	3.09	3.87	187.0	6.18	270	594	17.01	27.2
12:45 PM	3.09	3.84	188.8	6.19	280	595	17.02	20.5
12:50 PM	3.09	3.91	192.0	6.17	300	594	17.09	19.5
12:55 PM	3.10	3.90	195.1	6.14	300	592	17.14	20.1

Appendix F

Bills of Lading

PIG (E	pdi int	to typo ello (12) powrity	TMCENVIRONME	NTAL	· /				1
ſ	T	BILL OF LADING	Generator's US EPA ID No.	Manifest Doc. No.	2. Pag of	18 1 <b>T</b>	MC	2514	9
		3. Generator's Name and Malling Address Naval Station Newport, Environmental Distriction Drive 1 Simonpleth Drive Newport Pl 03841 4. Generator's Phone (4 0 1) 2 7 4		Att: Mark Reilly	L'ere	inse Higi dletown F		342	
		5. Transporter 1 Company Name		ID Number 3. 0. 1. 9. 9. 2. 4		nsporter's P	hone 508	8 986-8000	
		7. Transporter 2 Company Name	8. US EPA	ID Number		naporter'a P		0,00 0,100	
		9. Designated Facility Name and Site Address Northland Environmental, LLC 275 Allens Avenue	10. US EPA	ID Number	C. Fac	illty's Phone	40	/ <sup>3</sup> , <i>C C</i> 1 781-8340	,
	-	Providence RI 02005  11. Shipping Name and Description	R I. D 0 4. 0	1088352		12. Contr	alners	_13.	14.
		a. Mon-regulated material, non-hazardous	sail			No.	Турв	13. Total Quantity	14. Unit WVVol
						U 08	D. M	x.1.600	P
O EL N EL O	Į	b. (Yon-regulated material, non-hazardous				004	D, M	4.X.80C	G
FATOR		c. Non-regulated material, non-hazardous	liquids (Decon water)			001	D. M	X.V.1272	G
		d.						1000	۵
		D. Additional Descriptions for Materials Listed Above 3} (L)			E, Han	dling Codes		Maria de la companya	
		15. Special Handling Instructions and Additional Information TMC Project #1013-(11a) LFO1 11b)	0933 <b>SB N</b> O	)123 5TAB01					-
1		16. GENERATOR'S CERTIFICATION:   certify the mo	Torrest or the second of the second or the s	ot subject to federal regula	tions for r	oporting prop	er dispo		
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TAZO		Printed/Typed Name	Signatural	20	i		>	Month Day	Year
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Appendix G

**Data Validation Memorandum** 



### **Data Validation Report**

Project:	Naval Exchange Service Station (LUST No. LS-2295), Naval Station (NAVSTA) Newport, Rhode Island				
Laboratory:	Katahdin Analytical Services, Inc.				
Service Request:	WE40-1				
Analyses/Method:	EPA SW-846 Method 8015B for Nonha for Gasoline Range Organics (GRO, C Hydrocarbons (TPH, C10-C36)	alogenated Organics (GC/FID) / 8015B 6-C12) and Extractable Total Petroleum			
Validation Level:	Limited				
AECOM Project Number:	60307272.SA.SM				
Prepared by:	Kristin Rutherford/AECOM	Completed on: 12/19/2013			
Reviewed by:	Constance Lapite/AECOM	File Name: WE40_Soil_GRO_TPH Report_121913			

#### **SUMMARY**

The samples listed below were collected by Naval Exchange Service Station (LUST No. LS-2295), Naval Station (NAVSTA) Newport, Rhode Island site on November 14, 15, and 18, 2013.

Sample ID	Laboratory ID	Matrix/Sample Type
RS-SB1-111413	SG9044-1	Soil
RS-SB2-111513	SG9044-2	Soil
RS-SB3-111513	SG9044-3	Soil
RS-SB4-111813	SG9044-4	Soil
RS-SB5-111813	SG9044-5	Soil
RS-SB6-111513	SG9044-6	Soil
RS-SB7-111413	SG9044-7	Soil
RS-SB8-111413	SG9044-8	Soil
FD-SO-111813	SG9044-9	Field Duplicate of RS-SB5-111813

The data have been validated in accordance with the project-specific Work Plan, *Soil and Groundwater Investigation, Naval Exchange Service Station, NAVSTA Newport, RI; LUST No. LS-2295, Final* (Naval Facilities Engineering Command, Mid-Atlantic, 2013) and the following references:

- DoD Quality Systems Manual (QMS) for Environmental Laboratories, version 4.2 (DoD EDQW, 2010);
- USEPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (April 22, 2013);
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008);

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 Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW846, Method 8015C, Nonhalogenated Organics by Gas Chromatography (USEPA, 1996);

• laboratory quality control (QC) limits, as applicable.

The USEPA New England and National Data Validation Functional Guidelines were modified to accommodate the non-CLP methodologies. In the absence of method-specific direction for validation, AECOM professional judgment was used as appropriate.

#### **REVIEW ELEMENTS**

The data were evaluated based on the following parameters (where applicable to the method):

- ✓ Data completeness (chain-of-custody (COC))/sample integrity
- X Holding times and sample preservation
- ✓ Initial calibration/continuing calibration verification
- X Laboratory blanks/trip blanks/equipment blanks
- X Surrogate spike recoveries
- NA Matrix spike (MS) and/or matrix spike duplicate (MSD) results
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD)
- results
- ✓ Field duplicates
- ✓ Sample results/reporting issues

The symbol ( ) indicates that no results were qualified based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol ( ) indicates that a quality control (QC) nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated, negated, and/or rejected due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

#### **RESULTS**

#### **Data Completeness**

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

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#### **Holding Times/Sample Preservation**

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria.

Samples RS-SB7-111413 and RS-SB8-111413 were re-extracted for Extractable TPH analysis one day past the 14 day holding time. The positive results for Extractable TPH were qualified as estimated (J) and may be biased low.

Nonconformances are summarized in Attachment A in Table A-1.

Qualified sample results are shown in Table 1.

#### **Initial Calibration/Continuing Calibration Verification**

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r²), and/or response factor method acceptance criteria were met;
- the initial calibration verification standard (ICV) percent recovery acceptance criteria were met:
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and
- the retention time method acceptance criteria were met.

The QC acceptance criteria were met.

#### Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks and equipment rinsate blanks were evaluated as to whether there were contaminants detected above the method detection limit (MDL).

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method and equipment rinsate blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Table A-2. Sample results were qualified as follows:

Blank type	Blank result	Sample result	Action for samples
Method,	Detects	Not detected	No qualification
Storage,		< LOQ	Report sample LOQ value with a U
Field, Trip,	< LOQ	≥ RL and < 2x the LOQ	Report the sample result with a U**
or		≥ 2x the LOQ	No qualifications
Instrument*		< LOQ	Report sample LOQ value with a U
	> LOQ	≥ LOQ and < blank contamination	Report the sample result with a U

AECOM 4

Blank type	Blank result	Sample result	Action for samples				
		≥ LOQ and ≥ blank	If the result is <2x blank result, report the sample result U.**				
		contamination	If the result is > 2x blank result, no qualification is required.**				
* Qualification	* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has						
target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.							
**Based on A	ECOM professi	ional judgment					

LOQ (Limit of Quantitation) is equivalent to the lowest calibration standard.

Qualified sample results are shown in Table 1.

#### **Surrogate Spike Recoveries**

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria.

Nonconformances are summarized in Attachment A in Table A-3. Data qualification on the basis of surrogate recovery nonconformances was as follows:

Action					
Criteria	Detected Compounds	Nondetected Compounds			
%R > Upper Limit (UL)	J	No qualification			
20% = %R < Lower Limit (LL)	J	UJ			
%R < 20%	J	R			

Qualified sample results are shown in Table 1.

#### MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG, consistent with the Work Plan. There were no validation actions taken on this basis.

#### **LCS/LCSD Results**

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria.

All QC acceptance criteria were met.

#### Field Duplicate Results

Sample FD-SO-111813 was collected as the field duplicate of sample RS-SB5-111813.

Field duplicate RPDs were reviewed for conformance with the AECOM QC criteria of <50% for solid matrices and <30% for aqueous matrices. These criteria apply if both results were greater than five times the quantitation limit (LOQ).

All QC acceptance criteria were met.

#### Sample Results/Reporting Issues

All compounds detected at concentrations less than the quantitation limit (LOQ) but greater than the method detection limit (MDL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-targets was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

The percent solids data were reviewed to confirm that NFG 2008 specified criteria were met.

All percent solids criteria were met.

#### **QUALIFICATION ACTIONS**

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

#### **ATTACHMENTS**

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Validation Reason
FD-SO-111813	so	GASOLINE RANGE ORGANICS	140	2.1	2.6	MG_KG	J	s
RS-SB3-111513	so	GASOLINE RANGE ORGANICS	8.4	2.0	2.4	MG_KG	U	bl
RS-SB5-111813	so	GASOLINE RANGE ORGANICS	170	2.1	2.6	MG_KG	J	s
RS-SB7-111413	so	GASOLINE RANGE ORGANICS	3.4	2.2	2.7	MG_KG	U	bl
RS-SB7-111413	SO	TPH-EXTRACTABLE	3.0	3.8	5.0	MG_KG	J	h
RS-SB8-111413	so	TPH-EXTRACTABLE	7.5	4.4	5.8	MG_KG	J	h



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#### Attachment A

#### **Non Conformance Summary Tables**

#### Table A-1 - Hold Times

Sample ID	Compound	Days from Sampling to Prep	Status	Days from Prep to Analysis	Status
RS-SB1-111413 (RE)	TPH-EXTRACTABLE	15	>14 days	3	OK @40 days
RS-SB7-111413 (RE)	TPH-EXTRACTABLE	15	>14 days	3	OK @40 days
RS-SB8-111413 (RE)	TPH-EXTRACTABLE	15	>14 days	3	OK @40 days

#### Table A-2 - Lab Blanks

Blank ID	Compound	Result	QL	Units	Associated Samples
					FD-SO-111813 RS-SB1-111413 RS-SB2-111513
WG134903-1RA	GASOLINE RANGE ORGANICS	2.3	2.0	MG_KG	RS-SB3-111513 RS-SB4-111813 RS-SB5-111813 RS-SB6-111513 RS-SB7-111413
WG135097-1	TPH-EXTRACTABLE	10	3.8	MG_KG	RS-SB1-111413 RS-SB7-111413 RS-SB8-111413

Table A-3 - Surrogates

Sample ID	Surrogate	1% Recovery		Upper Limit
FD-SO-111813	4-BROMOFLUOROBENZENE	79	81	119
RS-SB5-111813	4-BROMOFLUOROBENZENE	77	81	119

#### Attachment B

#### **Qualifier Codes and Explanations**

Qualifier	Explanation
1	The analyte was positively identified; the associated numerical value is the
J	approximate concentration of the analyte in the sample.
JN	The analyte was tentatively identified; the associated numerical value is the
JIN	approximate concentration of the analyte in the sample.
	The analyte was not detected above the reported sample quantitation limit.
111	However, the reported quantitation limit is approximate and may or may not
UJ	represent the actual limit of quantitation necessary to accurately and precisely
	measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample
<u> </u>	quantitation limit.
	The sample results are rejected due to serious deficiencies in the ability to analyze
R	the sample and meet quality control criteria. The presence or absence of the
	analyte cannot be verified.



#### **Attachment C**

#### **Reason Codes and Explanations**

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
С	Calibration issue
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
1	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
р	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
S	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
Х	Percent solids
у	Serial dilution results
Z	ICS results



#### **Data Validation Report**

Project: Naval Exchange Service Station (LUST No. LS-2295), Naval Station (NAVSTA)

Newport, Rhode Island

Laboratory: Katahdin Analytical Services, Inc.

Service Request: WE40-1

Analyses/Method: EPA SW-846 Method 8260B for VOCs (GC/MS)

Validation Level: Limited

AECOM Project 60307272.SA.SM

Number:

Prepared by: Kristin Rutherford/AECOM Completed on: 12/19/2013

Reviewed by: Constance Lapite/AECOM File Name: WE40\_Soil\_GW\_VOC

Report\_121913

#### **SUMMARY**

The samples listed below were collected by AECOM from the Naval Exchange Service Station (LUST No. LS-2295), Naval Station (NAVSTA) Newport, Rhode Island site on November 8, 14, 15, 18, 20, and 21, 2013.

Sample ID	Laboratory ID	Matrix/Sample Type
RS-MW1-112013	SG9180-1	Ground water
RS-MW2-112013	SG9180-2	Ground water
RS-MW3-112013	SG9180-3	Ground water
RS-MW4-112113	SG9180-4	Ground water
RS-MW5-112113	SG9180-5	Ground water
RS-MW6-112013	SG9180-6	Ground water
RS-MW7-112013	SG9180-7	Ground water
RS-MW8-112013	SG9180-8	Ground water
FD-GW-112113	SG9180-9	Field Duplicate of RS-MW5-112113
TB-GW-110813	SG9180-10	Trip Blank
RS-SB1-111413	SG9044-1	Soil
RS-SB2-111513	SG9044-2	Soil
RS-SB3-111513	SG9044-3	Soil
RS-SB4-111813	SG9044-4	Soil
RS-SB5-111813	SG9044-5	Soil
RS-SB6-111513	SG9044-6	Soil
RS-SB7-111413	SG9044-7	Soil
RS-SB8-111413	SG9044-8	Soil
FD-SO-111813	SG9044-9	Field Duplicate of RS-SB5-111813
TB-SO-110813	SG9044-10	Trip Blank

The data have been validated in accordance with the project-specific Work Plan, *Soil and Groundwater Investigation, Naval Exchange Service Station, NAVSTA Newport, RI; LUST No. LS-2295, Final* (Naval Facilities Engineering Command, Mid-Atlantic, 2013) and the following references:

- DoD Quality Systems Manual (QMS) for Environmental Laboratories, version 4.2 (DoD EDQW, 2010);
- USEPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (April 22, 2013);
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008);
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW846, Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (USEPA, 1996);
- laboratory quality control (QC) limits, as applicable.

The USEPA New England and National Data Validation Functional Guidelines were modified to accommodate the non-CLP methodologies. In the absence of method-specific direction for validation, AECOM professional judgment was used as appropriate.

#### **REVIEW ELEMENTS**

The data were evaluated based on the following parameters (where applicable to the method):

- ✓ Data completeness (chain-of-custody (COC)/sample integrity
- ✓ Holding times and sample preservation
- ✓ GC/MS performance checks
- X Initial calibration/continuing calibration verification
- ✓ Laboratory blanks/trip blanks/equipment blanks
- ✓ Surrogate spike recoveries
- NA Matrix spike (MS) and/or matrix spike duplicate (MSD) results
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
- ✓ Field duplicates
- ✓ Internal standards
- ✓ Sample results/reporting issues

The symbol ( ) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol ( X ) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were qualified as estimated, negated, and/or rejected due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.



#### **RESULTS**

#### **Data Completeness**

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

The laboratory identification for samples RS-MW4-112113 and RS-MW5-112113 was incorrect; they noted the date in the ID as 112013. A revised data package was requested.

#### **Holding Times/Sample Preservation**

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria.

The date and time of collection for Trip Blank TB-GW-110813 was recorded as the date and time the sample was received from the laboratory. However, the date and time of collection for trip blanks is arbitrary. Convention is to use the date and time at which the trip blank was included in the cooler with the field samples, which could have been no earlier than 11/21/13. Since the trip blank was analyzed within holding time of 11/21/13, no validation action is required.

#### **GC/MS Performance Checks**

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. All samples were analyzed within 12 hours of the BFB tunes.

#### **Initial Calibration/Continuing Calibration Verification**

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r²), and/or response factor method acceptance criteria were met;
- the initial calibration verification standard (ICV) percent recovery acceptance criteria were met:
- the continuing calibration verification standard (CCV) percent difference or percent drift (%Ds) and RF acceptance criteria were met; and
- the retention time method acceptance criteria were met.

Nonconformances are summarized in Attachment A in Table A-1. Data qualification to the analytes associated with the specific ICAL, ICV and/or CCV was as follows:

#### **ICAL** and **CCV** Response Factor Nonconformances:

Criteria	Actions						
	Detected Results	Nondetected Results					
System Performance C	Check Compounds						
RF <0.10 for chloromethane, 1,1-dichloroethane, and bromoform or	J (all compounds)	UJ (all compounds)					
RF<0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane							
All compounds except SPCCs and	Poor Performing Compo	ounds <sup>1</sup>					
RF <0.05	J	$R^2$					
RF <0.05 but > 0.01	$J^3$	UJ <sup>3</sup>					
(if low standard response is adequate)							
Poor Performing	Compounds <sup>1</sup>						
RF <0.01	J	R					
<sup>1</sup> As defined in Table 15 of the NFG.							
<sup>2</sup> AECOM professional judgment may be used to either raise	e reporting level or to estim	nate reporting limit if low					
standard response is adequate.							
<sup>3</sup> AECOM professional judgment was used.							
Sample results qualified as not detected (U) due to blank contamination are not rejected, but estimated (UJ).							
SPCCs - System Performance Check Compounds							

#### **ICAL Linearity Nonconfomances:**

Criteria	Actions			
C	Detected Results	Nondetected		
%RSD > 30% for CCCs 1,1-dichloroethene, toluene, chloroform, ethylbenzene, 1,2-dichloropropane, vinyl chloride	J (all compounds)*	UJ (all compounds)*		
%RSD > 15% and quantitation based on mean RF	J	UJ		
r or r <sup>2</sup> < 0.99 and quantitation based on linear regression	J*	UJ*		
* No guidance in NFG, thus AECOM professional judgment was	sused			
CCCs - Calibration Check Compounds				

#### **ICV Recovery Nonconformances**

Criteria	Actions*				
Onteria	Detected Results	Nondetected Results			
Recovery > 120	J	UJ			
Recovery < 80	J	C			
* No guidance in NFG, thus AECOM professional judgment was used					

#### **CCV Linearity Nonconfomances:**

Criteria	Actions			
0.110.112	Detected Results	Nondetected Results		
%D > 20%	J	UJ		
%Drift >20%	J*	UJ*		

\* No guidance in NFG, thus AECOM professional judgment was used

Qualified sample results are shown in Table 1.

#### Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the method detection limit (MDL).

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

The QC acceptance criteria were met and/or qualification of the sample results was not required. There were no detected target analytes reported in the trip blank samples (TB-GW-110813 and TB-SO-110813).

#### **Surrogate Spike Recoveries**

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

#### MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG, consistent with the Work Plan. There were no validation actions taken on this basis.

#### LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

#### Field Duplicate Results

Field duplicate RPDs were reviewed for conformance with the AECOM QC criteria of <50% for solid matrices and <30% for aqueous matrices. These criteria apply if both results were greater than five times the quantitation limit (QL). All QC acceptance criteria were met.

#### **Internal Standard Results**

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

#### Sample Results/Reporting Issues

All compounds detected at concentrations less than the limit of quantitation (LOQ) but greater than the MDL were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-targets was checked to ensure that the results and/or sample specific LOQs and LODs were adjusted accordingly by the laboratory.

The percent solids data were reviewed to confirm that NFG 2008 specified criteria were met.

All percent solids criteria were met.

#### **QUALIFICATION ACTIONS**

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

#### **ATTACHMENTS**

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Validation Reason
FD-GW-112113	WG	METHYL TERT-BUTYL ETHER	0.60	0.50	1.0	UG_L	J	С
RS-MW1-112013	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
RS-MW2-112013	WG	METHYL TERT-BUTYL ETHER	3.3	0.50	1.0	UG_L	J	С
RS-MW3-112013	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
RS-MW4-112113	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
RS-MW5-112113	WG	METHYL TERT-BUTYL ETHER	0.72	0.50	1.0	UG_L	J	С
RS-MW6-112013	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
RS-MW7-112013	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
RS-MW8-112013	WG	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С
TB-GW-110813	WQ	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	С

978.905.2100 978.905.2101 tel fax

#### Attachment A

#### **Non Conformance Summary Tables**

Table A-1 - Calibrations

CCV ID	Compound	%D	%D Limits	Associated Samples
				TB-GW-110813
				RS-MW1-112013
				RS-MW2-112013
				RS-MW3-112013
WG135258-4 11/27/13 09:16	MTBE	20.9	<20.0	RS-MW4-112113
WG135256-4 11/21/13 09.10	IVIIDE	20.9	<20.0	RS-MW5-112113
				RS-MW6-112013
				RS-MW7-112013
				RS-MW8-112013
				FD-GW-112113

#### Attachment B

#### **Qualifier Codes and Explanations**

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.



#### **Attachment C**

#### **Reason Codes and Explanations**

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
С	Calibration issue
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
I	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
р	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
S	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
х	Percent solids
у	Serial dilution results
Z	ICS results

Appendix H

**Laboratory Reports** 

LABORATORY NAME Katahdin Analytical Service CITY/STATE Scarborough, Maine	s			
CASE NO. WE40 SDG NO. WE404 SDG NOS. TO FI	OLLOW_SG90	144 and .	SG-912	<u> </u>
contract no. <u>60307272</u> sow no.				
All documents delivered in the Complete SDG File must b	e original do	uments whe	re	
possible.	PAGE			ECK
	FROM	то	LAB	EPA
1. Inventory Sheet (Form DC-2) (Do not Number)	000000L	<u>20000</u> 9		
2. SDG Case Narrative	610000	0000006	John State of the	
3. SDG Cover Sheet/Traffic Report	0100000	D0000U	سما	
4. Volatiles Data				
a. QC Summary		•		
System Monitoring Compound Summary (Form II	0000036	0000039		
Matrix Spike/Matrix Spike Duplicate Summary				-
(Form III VOA)	NA	NA		
Method Blank Summary (Form IV VOA)	00000040	CHOXXXO	<u> </u>	
GC/MS Instrument Performance Check (Form V VOA)	0000043	0000047	Separation .	
Internal Standard Area and RT Summary				
(Form VIII VOA)	0000048	0000051	· in	
b. Sample Data	0800052	0000148		
TCL Results - (Form I VOA-1, VOA-2)		_	<i></i>	
Tentatively Identified Compounds (Form I VOA-		_		
Reconstructed total ion chromatograms (RIC) for				
each sample			V	
For each sample:				
Raw Spectra and background-subtracted mass				
spectra of target compounds identified		-		
Quantitation reports			1/	<del></del>
Mass Spectra of all reported TICs with three				
best library matches			<u>lor</u>	<del></del>
c. Standards Data (All Instruments)	0000149	MMJJA		
Initial Calibration Data (Form VI VOA-1, VOA-2)	0000171	<u>unisso</u>	·/	
RICs and Quan Reports for all Standards		_		
Continuing Calibration Data		_	<u> </u>	
(Form VII VOA-1, VOA-2)			_	
RICs and Quantitation Reports for all Standards				
d. Raw QC Data				
BFB	OCCA229	0000243		
Blank Data	0000044	0000264	<u> </u>	
Martix Spike/Matrix Spike Duplicate Data	0000365	0000000 _	<del></del>	
	10000	<u> </u>		

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		PAGI	E NOs	СНЕ	CK
	TPH	FROM	TO	LAB	E
<u>Se</u>	mivolatiles Data				
a.	QC Summary				
	Surrogate Percent Recovery Summary (Form II SV)	<u>0000786</u>	<u>0006392</u>		_
	MS/MSD Summary (Form III SV)	OG NA	NA	V	
	Method Blank Summary (Form IV SV)  GC Analytical Sequence Form V SV)  GC/MS Instrument Performance Check (Form V SV)	0000293 0000296		,	~~~
	Internal Standard Area and RT Summary				
	(Form VIII SV)	_NA_	NA_		
b.	Sample Data	9220297	0000338		
	TCL Results - (Form I SV-1, SV-2)				
	Tentatively Identified Compounds (Form I SV-			<u></u>	
	Reconstructed total ion chromatograms (RIC) for				
	each sample				_
	For each sample:				
	Raw Spectra and background-subtracted mass			. /	
	spectra of target compounds Quantitation reports				
	Mass Spectra of TICs with three best library				******
	matches			/	
	GPC chromatograms (if GPC is required)				
c.	Standards Data (All Instruments)	0000339	0000368		
	Initial Calibration Data (Form VI SV-1, SV-2)			V	
	RICs and Quan Reports for all Standards				
	Continuing Calibration Data (Form VII SV-1, SV-			V	
	RICs and Quantitation Reports for all Standards			<u></u>	
_					
ı.	Raw QC Data	١٥			
	DFTPP	NA TOTAL	<u>N(+</u> .		
	Blank Data	<u>0000369</u>	occi378		
	Matrix Spike/Matrix Spike Duplicate Data	62264379	assc 31913.	معما	
· .	Raw GPC Data	0000394	MONUM	1	
	690	6	(AND 101)		
ast	GRO <del>Meides</del> Data				
	QC Summary				
	Surrogate Percent Recovery Summary (Form II	<u>\$640000</u>	0000405		_
	MS/MSD Duplicate Summary (Form III PEST)	0000406	0000408	V	
-	Method Blank Summary (Porm IV PEST)	00000409	an and low		

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CASE NO. WE40-1 SDG NOS. SAS NO.	ro follow <u>S69044 and Se</u>	5-9180	<u>&gt;</u>
	PAGE NOs	СН	ECK
GRO	FROM TO	LAB	EPA
6. Posticides Data (Cont.)			
b. Sample Data	0000410 0000446		
TCL Results - Organic Analysis Data Sheet			
(Form I PEST)			-
Chromatograms (Primary Column)		1/_	
Chromatograms from second GC column	•		
GC Integration report or data system printo	ıt .		
Manual work sheets	-	-	
For pesticides/Aroclors by GC/MS,			
Copies of raw spectra and copies of			
background-subtracted mass spectra of tar	get		
compounds (samples & standards)	-		
<b>4</b> 1. <b>2 2 3 3 3 3 3 3 3 3 3 3</b>			
c. Standards Data	0000447 0000485		
Initial Calibration of Single Component			
(Form VI PEST-1 and PEST-2)	-		
Initial Calibration of Multicomponent Analyt	es	_	
(Form VI PEST-3)			
Analyte Resolution Summary (Form VI PEST-4)			<u></u>
Performance Evaluation Mixture (Form VI PEST	nation of the state of the stat		
Individual Standard Mixture A (FORM VI PEST- Individual Standard Mixture B (FORM VI PEST-		3/	
Calibration Verification Summary	-		
(Form VII PEST-1)			
Calibration Verification Summary		<u> </u>	
(Form VII PEST-2)			
· · · · · · · · · · · · · · · · · · ·		<del></del>	<del></del>
Analytical Sequence (Form VIII PEST) Florisil Cartridge Check (Form IX PEST-1)	_	<u> </u>	
Pesticide GPC Calibration (Form IX PEST-2)	<del>-</del>		
Pesticide Identification Summary for Single	<del>-</del>		
Component Analytes (Form X PEST-1)		,	
Pesticide Identification Summary for	<del></del>		
Multicomponent Analytes (Form X PEST-2)		_	
Chromatograms and data system printouts	<del></del>	<u> </u>	
A printout of retention times and			
corresponding peak areas or peak heights	<del>_</del>	6	
d. Raw QC Data			
Blank Data	energy Jehrane		
Matrix Spke/Matrix Spike Duplicate Data	0000486 0000495 _	<i>V</i>	
Space Macrix Spike Duplicate Data	<u>00000496 0000505</u> _	<u></u>	

#### ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

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_	PAGE	NOs	CHI	ECK
GRO	FROM	TO	LAB	I
Pesticides Data (Cont.)	nnacSOL	00 m 6 7	_	
e. Raw GPC Data	<u> </u>	<u>8000533</u>		_
f. Raw Florisil Data	<u>NA</u>	<u>NA</u>		_
Miscellaneous Data				
Original preparation and analysis forms or				
of preparation and analysis logbook pages- $\sqrt{\mathcal{O}}$	∞ <u>∞07%</u> 0	00003-88		_
Internal sample and sample extract transfer	~~ 5			
chain-of-custody records		<u>cecocos</u>	<u></u>	
Screening records	<u>NA</u>	<u>~\(\)</u>		_
All instrument output, including strip charts from screening activities (describe or list)				
Munual Integration (odes	00000017	<u> 122200</u>		
	NA	_WA		
EPA Shipping/Receiving Documents	. 6	10		
Airbills (No. of shipments)		N(+		
Chain-of-Custody Records	<u>(26000නි</u> ථ	<u>०००००भ्र</u>		
Sample Tags	.10	10		_
Sample Log-in Sheet (Lab & DC1)				
Miscellaneous Shipping/Receiving Records (describe or list)				
Sample Receipt Condition Report	0000018	0000019		
ogin Chain of Custody	- ·	<u>00000</u> 5		
Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	NA	NA	/	
	NA	NA		_
Other Records (describe or list)				
Telephone Communication Log	NΑ	NA	V	
	NA	WA .	~	
	NA	NA	1	

0000004

#### ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

CASE NO. LAYE	10 sdg no. WE40-1	signos. To follow $56-904$ sas no.	1 and 509182
Completed by: (CLP Lab)	Mac Partite (Signature)	Melaje Brown Data Magnt	12-4-13 (Date)
Verified by: (CLP Lab)	(Signature)	(Printed Name/Title)	(Date)
Audited by: (EPA)	(Signature)	(Printed Name/Title)	(Date)

	FULL INORGANICS COMPLETE SDO	FILE (CSF)	NVENTORY SH	EET	
	ORATORY NAME Katahdin Analytical Se	rvices			
CASI	: NO. WE40 SDG NO. WE404 SDG	G NOS. TO	FOLLOW SG	9044 and S	SG-9180
CONT	PRACT NO. 60307272				
sow					
	documents delivered in the Complete SDG Fi sible. (Reference - ILM05.4, Exhibit B Sect		e original d	locuments w	nere
		PAC	E NOs.	CHI	<u>ick</u>
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ı.	Cover Page	0 <u>000</u> 0	<u>0000</u> 11		*************
2.	SDG Narrative	O <u>O(()</u> )	0 <u>0000</u> 16		<del></del>
3.	Sample Log-In Sheet (DC-1)	NO	NA	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
4.	Inventory Sheet (DC-2))	/ <u>035600</u> 0	000000		<del></del>
5.	Traffic Report/Chain of Custody Record(s)	0 <u>00063</u> 0	(XXXX)		
	Inorganic Analysis - Helds				
6.	Data Sheet (Form I-IN)	0 <u>0005</u> 14	0 <u>0005</u> 18		******************************
7.	Initial & Continuing Calibration Verification (Form IIA-IN)	<u>ಂಯ5</u> 19	0000525		
8.	CRQL Standard(Form IIB-IN).	0000526	0000527		<del></del>
9.	Blanks (Form III-IN)	o <u>ckoo</u> os	0 <u>00053</u> 3		
10.	ICP-AES Interference Check Sample (Form IVA-IN)	0 <u>0005</u> 34	<u> </u>		with the second
11.	ICP-MS Interference Check Sample(Form IVB-IN)	NA	NA		
12.	Matrix Spike Sample Recovery(Form VA-IN)	NA	NA		
13.	Post-Digestion Spike Sample Recovery(Form VB-IN)	NA NA	WA		
14.	Duplicates (Form VI-IN)	NA	NA		
15.	Laboratory Control Sample(Form VII-IN)	<u>00065</u> 35	0 <u>0005</u> 38		
16.	<pre>ICP-AES and ICP-MS Serial Dilutions (Form VIII-IN)</pre>	NA	NA		<del></del>
17.	Method Detection Limits (Annually) (Form IX-IN)	0 <u>005<b>3</b>9</u>	( <u>12005</u> 44		***************************************
18.	ICP-AES Interelement Correction Factors (Quarterly) (Form XA-IN)	0 <u>0005</u> 45	0 <u>00054</u> 5		
19.	ICP-AES Interelement Correction Factors (Quarterly) (Form XB-IN)	NA	NA	~	***************************************
20.	ICP-AES and ICP-MS Linear Ranges (Quarterly) (Form XI-IN)	0005 <u>4</u> 6	0 <u>660</u> 546	<u> </u>	
21.	Preparation Log (Form XII-IN)	0000547	STESTS		
22.	Analysis Run Log (Form XIII-IN)	0700549	(XX)55)		<del></del>

M&E DAS

FULL INORGANICS COMPLETE SDO		NVENTORY SE E NOs.		ECK
	FROM	TO ·	LAB	REGIÓN
23. ICP-MS Tune (Form XIV-IN)	NA	<u> </u>		
24. ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	NA	AL		
25. ICP-AES Raw Data	086553	0 <u>0005</u> 80		
26. ICP-MS Raw Data	NA	AVA		
27. Mercury Raw Data	WA	ALA		
2B. Cyanide Raw Data	NA	NA		
29. Preparation Logs Raw Data (Wet Chemistry)	NA	NA		
30. Percent Solids Determination Log	AM	_AUA_		
31. USEPA Shipping/Receiving Documents				<del></del>
Airbill (No. of Shipments1)	NA	NA	<u> </u>	
Sample Tags	NA	NA	Norman .	
Sample Log-In Sheet (Lab)	AN	NA		
32. Misc. Shipping/Receiving Records (list all individual records)				<del></del>
Telephone Logs	<u>AUA</u>	AA		
Sample Receipt Condition Report	MACCOCC	18 AA OCCU	.\q	
Logbooks and Supporting Documents	00 <u>00 58</u> 1	<u> యయక</u> కన		
33. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)	AA.	NA		
Internal Chain of Custody	<u> </u>	<u>యుబ</u> కెన		***************
Login Chain of Custody Report	$\alpha \alpha \alpha \beta \lambda$	<u>0000</u> 25		-
34. Internal Original Sample Prep & Analysis Records (describe or list)				
Prep Records	NA	<u>ALA</u>		
Analysis Records	NA	NA		
Description Duplicate Precision Form	<u>N4</u>	₩A.		
35. Other Records (describe or list)	NA	NA	boom	
Telephone Communications Log DAS Specifications	.12	<del></del>		
	<u> </u>	NA		
36. Comments		· · · · · · · · · · · · · · · · · · ·		
(Signaturé)	re Brown// (Print Name	Data Magnet	12.4	/-/ 3 (Date)
dited by: JSEPA)				
	(Print Name	e & Title)	-	(Date)
-		<b></b>		·
FORM DC-2-2		M&E	DAS	

FULL INORGANICS COMPLETE SI	G FILE (CSF)	NVENTORY SI	HEET	
LABORATORY NAME Katahdin Analytical Scity/State Scarborough, ME	ervices	,		the state of the s
CASE NO. WE40 SDG NO.WE401 S	DG NOS. TO	FOLLOW Sign	044 and	569180
CONTRACT NO. 60307272				
SOW NO.				
All documents delivered in the Complete SDG	File must b	e original o	iocuments v	here
possible. (Reference - ILM05.4, Exhibit B Sec	ction 2.6)			
	DA C	TE NO.	en e	The care
	FROM	TO		ECK PECTON
1. Cover Page	0 <u>0000</u> 0	10000000000000000000000000000000000000	<u>LAB</u>	REGION
2. SDG Narrative	0 <u>000</u> 012	00000016	<u> </u>	**************************************
3. Sample Log-In Sheet (DC-1)	NA	NA		
4. Inventory Sheet (DC-2))	000000	922269	<del>\</del>	<del></del>
5. Traffic Report/Chain of Custody Record(s	1 000000	160 <u>00000</u>		
Inorganic Analysis - Wet Chemistry		_		
6. Data Sheet (Form I-IN)	0 <u>6005</u> 91	50 <u>20</u> 0		
<ol> <li>Initial &amp; Continuing Calibration Verification (Form IIA-IN)</li> </ol>	NA	<u>NA</u>		
8. CRQL Standard(Form IIB-IN)	NA	AL	<u> </u>	
9. Blanks (Form III-IN)	06 <u>6658</u> 4	<u> 20005</u> 67		•
10. ICP-AES Interference Check Sample (Form IVA-IN)	NA	NA		
<ol> <li>ICP-MS Interference Check Sample (Form IVB-IN)</li> </ol>	NA	NA		
12. Matrix Spike Sample Recovery(Form VA-IN)	NA	NA		-
13. Post-Digestion Spike Sample Recovery(For VB-IN)	<u> Na</u>	NA		
14. Duplicates (Form VI-IN)	0000590	0 <u>0005</u> 90		******
15. Laboratory Control Sample(Form VII-IN)	0000588	<u>0000</u> 559		No the Advances of the State of
16. ICP-AES and ICP-MS Serial Dilutions (For VIII-IN)	<u> </u>	NA		
<pre>17. Method Detection Limits (Annually) (Form IX-IN)</pre>	NA	AL		<del></del>
<ol> <li>ICP-AES Interelement Correction Factors (Quarterly) (Form XA-IN)</li> </ol>	NA	MA	1	
<pre>19. ICP-AES Interelement Correction Factors   (Quarterly) (Form XB-IN)</pre>	<u> </u>	<u>NA</u>	<u> </u>	***************************************
20. ICP-AES and ICP-MS Linear Ranges (Quarterly) (Form XI-IN)	NA	NA	V	
21. Preparation Log (Form XII-IN)	NA	NA		
22. Analysis Run Log (Form XIII-IN)	MA	NA		
FORM DC-2-2		M&E D	)AS	

FULL INORGANICS COMPLETE SI	OG FILE (CSF)	INVENTORY S	HEET			
		GE NOs.		CHECK		
	FROM	TO ·	LAB	REGION		
23. ICP-MS Tune (Form XIV-IN)	NA	NA		-		
24. ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	NA	NA				
25. ICP-AES Raw Data	MA	NA				
26. ICP-MS Raw Data	ALL	NA				
27. Mercury Raw Data	<u> 14</u>	NA				
28. Cyanide Raw Data	MA	NA				
29. Preparation Logs Raw Data (Wet Chemistry)	0000604	0000610				
30. Percent Solids Determination Log	NA	NA				
31. USEPA Shipping/Receiving Documents			<del></del>	<del></del>		
Airbill (No. of Shipments1)	NA	NA				
Sample Tags	NA	NA				
Sample Log-In Sheet (Lab)	NA	NA		<del></del>		
32. Misc. Shipping/Receiving Records (list all individual records)	. **	6				
Telephone Logs	» NA° "	NA_	V			
Sample Receipt Condition Report	60 <u>0068</u>	0200219				
Manual Integration Codes	6 <u>0000</u> 17	0000017				
33. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)	NA	<u> الم</u>	<u>v</u>			
Internal Chain of Custody	<u> </u>	<u>ососо</u> 35				
Login Chain of Custody Report	( <u>0000)</u> }}	00m25		N		
34. Internal Original Sample Prep & Analysis Records (describe or list)						
Prep Records	NA	NA	<u>~</u>			
Analysis Records		NA				
Description Duplicate Precision Form	A(A	NA	~			
5. Other Records (describe or list)	NA	a IA-				
Telephone Communications Log DAS Specifications		<u>////                                 </u>		<del></del>		
	NA	MA	<u></u>			
6. Comments				_		
	The second livery with the second	ata Magnit	12-4-1	3		
(Signature)	(Print Name	e & Titlé)		(Date)		
EPA)						
(Signature)	(Print Name	& Title)		(Date)		
FORM DC-2-2		M&E D	AS			

# AECOM ENVIRONMENT NAVSTA NEWPORT CTO WE40-04 (60307272) SDG: WE40-1 SG9044 & SG9180

# KATAHDIN ANALYTICAL SERVICES, INC. 600 TECHNOLOGY WAY SCARBOROUGH, ME 04074

## SAMPLE DATA PACKAGE





# SDG NARRATIVE KATAHDIN ANALYTICAL SERVICES AECOM ENVIRONMENT NAVSTA NEWPORT CTO WE40-04 (60307272) SDG: WE40-1 SG9044 & SG9180

#### Sample Receipt

The following samples were received on November 18 and 21, 2013 and were logged in under Katahdin Analytical Services work order numbers SG9044 and SG9180 for a hardcopy due date of December 02, 2013.

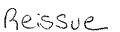
KATAHDIN	AECOM ENVIRONMENT					
Sample No.	Sample Identification					
SG9044-1	RS-SB1-111413					
SG9044-2	RS-SB2-111513					
SG9044-3	RS-SB3-111513					
SG9044-4	RS-SB4-111813					
SG9044-5	RS-SB5-111813					
SG9044-6	RS-SB6-111513					
SG9044-7	RS-SB7-111413					
SG9044-8	RS-SB8-111413					
SG9044-9	FD-SO-111813					
SG9044-10	TB-SO-110813					
SG9180-1	RS-MW1-112013					
SG9180-2	RS-MW2-112013					
SG9180-3	RS-MW3-112013					
SG9180-4	RS-MW4-112113					
SG9180-5	RS-MW5-112113					
SG9180-6	RS-MW6-112013					
SG9180-7	RS-MW7-112013					
SG9180-8	RS-MW8-112013					
SG9180-9	FD-GW-112113					
SG9180-10	TB-GW-110813					
SG9180-11	IDW-GW-112113					

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, Ms. Jennifer Obrin. This narrative is an integral part of the Report of Analysis.



0000012





#### **Organics Analysis**

The samples of SDG WE40-1 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA and/or for the specific methods listed below or on the Report of Analysis.

#### 8015 GRO Analysis

Samples SG9044-5, 6, 9 and SG9180-11 were manually integrated for the GRO range and/or the surrogate 4-bromofluorobenzene. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Samples SG9044-5 and 9 had low recoveries for the surrogate 4-bromofluorobenzene which were outside of the laboratory established acceptance limits.

The calibration verification standards (CV) (files 9GK4001A, 9GK4015A and 9GK4040) had high responses for naphthalene, which resulted in %D's that were greater than 20%. Since the method requirement applies to only the GRO range response, which was acceptable, the associated samples were not reanalyzed.

The GRO range was detected above ½ the reporting limit, but below the LOQ, in the method blank WG134903-1RA. According to the DoD QSM section D.1.1.1, a method blank is considered to be contaminated if the concentration of any target analyte in the blank exceeds ½ the reporting limit. The analyte that was also detected in any of the associated samples was flagged with a "B" qualifier indicating that the analyte was detected in the method blank analyzed concurrently with the sample.

#### 8260B Analysis

The calibration verification standard (file D6916) had a high response for the target analyte methyl tert-butyl ether that resulted in a %D that exceeded the DoD QSM acceptance limits of 20%.

#### 8015 TPH Analysis

Samples SG9044-1DL, 1RE, 2RE, 3REDL, 5REDL, 6REDL, 8RE, 9REDL, and SG9180-11 were manually integrated for the TPH range and/or the surrogate o-terphenyl. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SG9044-1RE had a recovery for the surrogate o-terphenyl that was high and outside of the laboratory established acceptance limits. Since this was a re-extract, no further action was taken.







The target range Extractable TPH was detected above the LOQ in the method blank WG135097-1. All samples associated with this blank were re-extracted. Samples SG9044-1, 7, and 8 were reextracted one day out of hold time. The results for both extractions are reported for these samples. If the range was also detected in the associated samples, the range is flagged with a "B" qualifier indicating they were detected in the method blank analyzed concurrently with the sample.

The CV (file AGK20378A) had a high response for C30, which resulted in a %D that was greater than 20%. Since the method requirement applies to only the TPH range response, which was acceptable, the associated samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organics laboratory staff.

#### **Metals Analysis**

The samples of SDG WE40-1 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Number SG9180-11 was digested for ICP analysis on 11/26/13 (QC Batch GK26ICW2) in accordance with USEPA Method 3010A.

ICP analyses of SDG WE40-1 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all analytical run QC criteria were met.

#### Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Aqueous-matrix Katahdin Sample Number SG9180-11 was digested for mercury analysis on 11/25/13 (QC Batch GK25HGW2) in accordance with USEPA Method 7470A. Duplicate laboratory control samples were digested in this batch.

Mercury analysis of the SDG WE40-1 sample digestates were performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Method 7470A. All analytical run QC criteria were met and all samples were analyzed within holding times.

#### Reporting of Metals Results

Per client request, analytical results for client samples on Form I and preparation blanks on Form IIIP have been reported using the laboratory's limits of detection (LOD). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOD is listed in the concentration column.







These LOQs, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the measured concentration is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

#### **Wet Chemistry Analysis**

The samples of SDG WE40-1 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for ignitability were performed according to "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA,III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Analyses for total solids were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19<sup>th</sup>, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times, and all quality control criteria were met.







I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond

Quality Assurance Officer

### Katahdin Analytical Services, Inc.

# Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services,	Inc.			Sar	mple Receipt Condition Report
Client: Rescon		KAS	PM:		To Sampled By: Chert
Project:			S Entry	By:	Delivered By: Andrew Hav
KAS Work Order#: 5G 9044			S Revie	ew By:	Received By:
SDG #: Co	oler:	of			Date/Time Rec.: ///8//3 /8:75
Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
Custody seals present / intact?					Commente different (Cestificities)
2. Chain of Custody present in cooler?	X				
3. Chain of Custody signed by client?	X				
4. Chain of Custody matches samples?	$\mathcal{X}$				
Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	e X	777			Temp (°C): 5. /
Samples received at <6 °C w/o freezing?	$\sim$ $\sim$				Note: Not required for metals analysis.
Ice packs or ice present?	X				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may
If yes, was there sufficient ice to meet temperature requirements?					not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process beg (i.e. ice or packs present) and sample collection times <6hrs., but samples are yet cool?				/	Note: No cooling process required for metals analysis.
5. Volatiles:					
Aqueous: No bubble larger than a pea? Soil/Sediment:					-
Received in airtight container?				9	TRACE CONTROL OF THE
Received in methanol?					
Methanol covering soil?					
D.I. Water - Received within 48 hour HT?	,	-		$\nearrow$	
7. Trip Blank present in cooler?					
B. Proper sample containers and volume?					
. Samples within hold time upon receipt?					
<ol> <li>Aqueous samples properly preserved?</li> <li>Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH &lt;2 Sulfide - &gt;9</li> </ol>					
Cyanide – pH >12				-	
Log-In Notes to Exceptions: document a	nv problems	with	samr	les o	I or discrenancies or nH adjustments
•	, , , , , , , , , , , , , , , , , , , ,		-u111		or disorpansies or pri aujustments

Client: AE COMProject:  CAS Work Order#: 56-9180  COOLE		КІ	AS PM: MS Entr MS Revi	y By: (	
			······································		Siverco By.
			N/I > P DI /I	OW RV	Received By:
C0016	1		ivio revi	ew by.	
	er:	of _			Date/Time Rec.: 11-2 1- (3/16:40
Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
. Custody seals present / intact?					Comments and/or Resolution
. Chain of Custody present in cooler?			<del> </del>		
		<del> </del>	1		
Chain of Custody signed by client?				ļ	
Chain of Custody matches samples?		1		<u> </u>	
Temperature Blanks present? If not, take imperature of any sample w/ IR gun.					Temp (°C): 2, →
Samples received at <6 °C w/o freezing?					Note: Not required for metals analysis.
Ice packs or ice present?		1			The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may
If yes, was there sufficient ice to meet temperature requirements?		-			not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begur (i.e. ice or packs present) and sample collection times <6hrs., but samples are no yet cool?				-	Note: No cooling process required for metal analysis.
Volatiles:	/	1			
queous: No bubble larger than a pea?					
oil/Sediment:					
Received in airtight container?		<del>- </del>			
Received in methanol?					
Methanol covering soil?					
D.I. Water - Received within 48 hour HT?		<u> </u>			
Trip Blank present in cooler?				>	
Proper sample containers and volume?		1			
Samples within hold time upon receipt?	/	1			
. Aqueous samples properly preserved?  Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2 Sulfide - >9	/				
		ļ			
Cyanide – pH >12				<u>′</u>	or discrepancies or pH adjustments

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140 PS

# CHAIN OF CUSTODY RECORD

Page 1 of 1

6 - Na2S2O3, 4° 7 - 4° Preservation 1 – HCI, 4° 2 – H2SO4, 4° 3 – HNO3, 4° 4 – NaOH, 4° 5 – NaOH/ZnAc, S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product Remarks DW – Drinking Water WW – Wastewater GW – Groundwater SW – Surface Water ST – Storm Water W – Water Container Type
P - Plastic
A - Amber Glass
G - Clear Glass
V - VOA Vial
O - Other
E - Encore Analytical Laboratory (Destination): 를 다 Analysis Requested Date: [ [ | K/|3 DRO via SW 846-8100 × × × × × × × × × TPH-GRO via SW-846 8015, VOCs-SW-846 8260 (BTEX plus MTBE) × × × × Depth Collected 5-7 5-7 5-7 5.7 5.7 4.9 8-9 F-5 4.9 Received by: (Print Name)/(Affiliation) Methanol 10 day Preserv. TAT: Matrix Ø S S constance.lapite@aecom.com S ഗ Ø ഗ S S ഗ Chain of Custody Tape Nos.: Send Results/Report to: Sample Container (Size/Mat'l) VOA, 4oz Glass VOA, 4oz Glass VOA, 4oz Glass VOA, 40z Glass VOA, 40z Glass NAVSTA Newport, RI VOA, 4oz Glass VOA, 4oz Glass VOA, 4oz Glass VOA, 4oz Glass Field Logbook No.: ΥOA Project Location: Date: 11/15/15 ⊙α<Φ × × × × × × × ×  $\times$ × O O ∑ ∩ 14:25 8:3 11/18/12/10:20 11/08/13/10/45 11/18/13 10:15 11/15/13 08:15 11/15/13 400 54:11/8/11/11/2 Time 51:21 11/4/3 81:45 11/15/13 (H/H) Relinquished by: (Print Name)(Affiliation) 111413 Date Andrew Sayre, Tom Croft /RESCON Sampler (Print Name)/(Affiliation): Trip Blank TG - 50- 110813 Field Sample No./Identification Navy CLEAN CTO WE40 Client/Project Name: RS-SB4- 111513 RS-SB3- 11 (513 Project Number: RS-SB6- 111513 RS-SB8-1|1413 RS-SB1-111413 RS-SB7- III413 RS-SB2-111513 RS-SB5- [[1813 FD-SO- [[1813 Signature:

Serial No.

Temp blank

Sample Shipped Via:

KATAHDIN

Time: 1500

Date: Time: Date: Time:

Signature: Received by: (Print Name)/(Affiliation)

Time: Date: Time:

Signature: Relinquished by: (Print Name)/(Affiliation)

50000

Date:

Relinquished by: (Print Name)/(Affiliation)

Signature:

Received by: (Print Name)/(Affiliation)

Signature;

Time: , 500

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08/67

# **CHAIN OF CUSTODY RECORD**

Preservation 1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOHZAAC, 6 - Na2S2O3, 4° S - Soil SL - Studge SD - Sediment SO - Solid A - Air L - Liquid P - Product و ا Temp blank Remarks DW – Drinking Water WW – Wastewater GW – Groundwater SW – Surface Water ST – Storm Water W – Water Container Type
P -- Plastic
A -- Amber Glass
G -- Clear Glass
V -- VOA Vial
O -- Other
E -- Encore Matrix Codes: Date:  $//(2/\beta)$  Analytical Laboratory (Destination): Ба С. Time: 1247 KATAHDIN Sample Shipped Via: Analysis Requested Ignitability - SW-846 1030 × Date: Time: Time: Date: RCRA 8 Metals -- SW-846 6010/6020 × DRO via SW 846-8100 × TPH-GRO via SW-846 8015, VOCs-SW-846 8260 (BTEX plus MTBE) × × × × × × × × Depth Collected Received by: (Print Name)/(Affiliation) Received by: (Print Name)/(Affiliation) Received by: (Print Name)/(Affiliation) Preserv. 10 day H N H N TAT 泛 욛 ည် 뎓 뎓 먇 퉏 일 £ ပို Matrix ≷ 8 Š 8 გ გ ΘĶ Ğ Šξ ₹ ₹ constance.lapite@aecom.com Chain of Custody Tape Nos.: Signature: Send Results/Report to: VOA, 250ml/HDPE, 1L/ Amber, 250ml/Amber Signature: Sample Container (Size/Mat'l) NAVSTA Newport, RI VOA, VoA, Š Š ΥÓΑ Vo A VOA VOA ΥÖ Field Logbook No.: Š Ş Project Location: Date: 11/21/13 Time: 1247 9 X X B × × × × × × × × × × OOM Time: Date: Date: Time: 1550 1121 13 11:00 1535 1425 (035 11/2013 1300 0401 | 51/12/11 0011 21(80/11 05H1 | 2JbZ/11 0181 |21/02/11 11/21/13/1056 Time 11/20/13 1 20 13 11/20/13 11/21/13 Date Andrew Sayor (Rescon Andrew Sayre, Tom Croft /RESCON Relinquished by: (Print Name)/(Affication) Relinquished by: (Print Name)/(Affiliation) Signature: Relinquished by: (Print Name)/(Affiliation) Sampler (Print Name)/(Affiliation): Field Sample No./Identification THIP BIRTHE GW-110813 Navy CLEAN CTO WE40 Client/Project Name: RS-MW7- 112013 RS-MW3- (12013 RS-MW4- 112 11 3 RS-MW8-1 12013 RS-MW2-1120(3 RS-MW5- 112113 DW-GW-112113 RS-MW1- [[2013 RS-MW6- [12013 Project Number: FD-GW-112113 60307272 Signature: Signature:

Serial No.

C:Userskayrea\DocumentsMavsta Newport\Chain-of-Custody\_ResCon\_Navsta Newport.doc



### Login Chain of Custody Report (Ino1)

Nov. 22, 2013 10:50 AM

Login Number: SG9044

Quote/Incoming: AECOM-NPWE40-04

Account: METCAL001

NoWeb

**AECOM Environment** 

NAVSTA Newport CTO WE40-04

Login Information:

Project: AECOM-NPWE40-04

ANALYSIS INSTRUCTIONS : Follow DoD QSM Version 4.2 using DoD limits without variance. "U" LOD. "J" flag between DL

and LOQ. TPH=C10-C36. GRO=C6-C12. TPH-

Page: 1 of 2

analyze by SW8100. VOA-MeOH only.

Primary Report Address:

CHECK NO.

CLIENT PO# : need PO

AECOM Environment

CLIENT PROJECT MANAGE:

701 Edgewater Drive

Constance Lapite

CONTRACT :

Wakefield,MA 01880

COOLER TEMPERATURE : 5.1
DELIVERY SERVICES : KAS

Primary invoice Address:

EDD FORMAT : KAS135QC-CSV

LOGIN INITIALS

: GN

Keith Wright AECOM

PM : JO

4840 Cox Rd.

PROJECT NAME : NAVS

QC LEVEL

: NAVSTA Newport CTO WE40-04 (60307272) : IV

REGULATORY LIST

;

: WE40-1

Glen Allen, VA 23060

REPORT INSTRUCTIONS : Send HC Constance

: Send HC and CD to Constance. Email EDD to

Constance. Send invoices to Keith.

Report CC Addresses:

Invoice CC Addresses: SDG ID

Laboratory Sample ID	Client Sample Number	Collect S Date/Time	Date PR	Verbal <sup>Begin</sup> D Date D	ue ate Mailed
SG9044-1	RS-SB1-111413	14-NOV-13 14:25	18-NOV-13	02	2-DEC-13
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S COURIER-BILLING				
Solid	S SW8015M-GRO	28-NOV-13	40 mL Vial+MEOH		
Solid	S SW8015M-TPH	28-NOV-13	4oz Glass		N N
Solid	S SW8260-S	28-NOV-13	40 mL Vial+MEOH		
Solid	S TS	14-DEC-13	4oz Glass		
SG9044-2	RS-SB2-111513	15-NOV-13 12:15	18-NOV-13	02	P-DEC-13
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S SW8015M-GRO	29-NOV-13	40 mL Vial+MEOH		
Solid	S SW8015M-TPH	29-NOV-13	4oz Glass		
Solid	S SW8260-S	29-NOV-13	40 mL Vial+MEOH		
Solid	S TS	15-DEC-13	4oz Glass		
SG9044-3	RS-SB3-111513	15-NOV-13 14:00	18-NOV-13	02	-DEC-13
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S SW8015M-GRO	29-NOV-13	40 mL Viai+MEOH		
Solid	S SW8015M-TPH	29-NOV-13	4oz Glass		
Solid	S SW8260-S	29-NOV-13	40 mL Vial+MEOH		
Solid	S TS	15-DEC-13	4oz Glass		
SG9044-4	RS-SB4-111813	18-NOV-13 11:45	18-NOV-13	02	-DEC-13
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S SW8015M-GRO	02-DEC-13	40 mL Vial+MEOH		
Solid	S SW8015M-TPH	02-DEC-13	4oz Glass		
Solid	S SW8260-S	02-DEC-13	40 mL Vial+MEOH		
Solid	S TS	18-DEC-13	4oz Glass		
SG9044-5	RS-SB5-111813	18-NOV-13 10:15	18-NOV-13	02	-DEC-13
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S SW8015M-GRO	02-DEC-13	40 mL Vial+MEOH		
Solid	S SW8015M-TPH	02-DEC-13	4oz Glass		
Solid	S SW8260-S	02-DEC-13	40 mL Vial+MEOH		
Solid	S TS	18-DEC-13	4oz Glass		$\sim$ $\sim$

0000033



## Login Chain of Custody Report (Ino1)

Nov. 22, 2013 10:50 AM

Login Number: SG9044

Quote/Incoming: AECOM-NPWE40-04

Account: METCAL001

NoWeb

**AECOM Environment** 

Project: AECOM-NPWE40-04

NAVSTA Newport CTO WE40-04

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date PR	Verbal Date	Due Date	Mailed
SG9044-6	RS-SB6-111513	15-NOV-13 09:15	18-NOV-13		02-DEC-13	
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Coun	nt	Comments
Solid	S SW8015M-GRO	29-NOV-13	40 mL Vial+MEOH			
Solid	S SW8015M-TPH	29-NOV-13	4oz Glass			
Solid	S SW8260-S	29-NOV-13	40 mL Vial+MEOH			
Solid	S TS	15-DEC-13	4oz Glass			
SG9044-7	RS-SB7-111413	14-NOV-13 09:45	18-NOV-13		02-DEC-13	
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Coun	t	Comments
Solid	S SW8015M-GRO	28-NOV-13	40 mL Vial+MEOH			
Solid	S SW8015M-TPH	28-NOV-13	4oz Glass			
Solid	S SW8260-S	28-NOV-13	40 mL Vial+MEOH			
Solid	S TS	14-DEC-13	4oz Glass			
SG9044-8	RS-SB8-111413	14-NOV-13 12:00	18-NOV-13		02-DEC-13	
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Coun	ıt	Comments
Solid	S SW8015M-GRO	28-NOV-13	40 mL Vial+MEOH			
Solid	S SW8015M-TPH	28-NOV-13	4oz Glass			
Solid	S SW8260-S	28-NOV-13	40 mL Viai+MEOH			
Solid	S TS	14-DEC-13	4oz Glass			
SG9044-9	FD-SO-111813	18-NOV-13 10:20	18-NOV-13		02-DEC-13	
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Coun	t	Comments
Solid	S SW8015M-GRO	02-DEC-13	40 mL Vial+MEOH			
Solid	S SW8015M-TPH	02-DEC-13	4oz Glass			
Solid	S SW8260-S	02-DEC-13	40 mL Vial+M€OH			
Solid	S TS	18-DEC-13	4oz Glass			
SG9044-10	TB-SO-110813	08-NOV-13 10:45	18-NOV-13		02-DEC-13	
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Coun	t	Comments
Solid	S SW8260-S	22-NOV-13	40 mL Vial+MEOH			Trip Blank, no TS jar
Solid	s TS	08-DEC-13				

Total Samples:

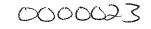
10

Total Analyses:

39

11.33.13

Page: 2 of 2





## Login Chain of Custody Report (Ino1)

Dec. 23, 2013 10:48 AM

Login Number: SG9180

Quote/Incoming: AECOM-NPWE40-04

Account: METCAL001

NoWeb

**AECOM Environment** 

**Login Information:** 

Project: AECOM-NPWE40-04

NAVSTA Newport CTO WE40-04

ANALYSIS INSTRUCTIONS : Follow DoD QSM Version 4.2 using DoD limits without variance. "U" LOD. "J" flag between DL

and LOQ. TPH=C10-C36. GRO=C6-C12. TPH-

Page: 1 of 2

analyze by SW8100.

Primary Report Address:

CHECK NO.

Constance Lapite

**CLIENT PO#** 

: 60307272 ATS11--12S-15180-LA12

**AECOM Environment** 701 Edgewater Drive

CLIENT PROJECT MANAGE: CONTRACT

: N62470-11-D-8013

Wakefield,MA 01880

COOLER TEMPERATURE : 2.2

Primary invoice Address:

DELIVERY SERVICES

: KAS : KAS135QC-CSV

Keith Wright

EDD FORMAT LOGIN INITIALS

: GN

**AECOM** 4840 Cox Rd. PM PROJECT NAME

: JO : NAVSTA Newport CTO WE40-04

QC LEVEL

Glen Allen, VA 23060

REGULATORY LIST REPORT INSTRUCTIONS

: Send HC and CD to Constance. Email EDD to

Constance. Send invoices to Keith.

Report CC Addresses:

Invoice CC Addresses:

: WE40-1 SDG ID

Laboratory Sample ID		Collect S Date/Time	Date PR	Verbal <sup>End</sup> Due Date Date	Mailed
SG9180-1	RS-MW1-112013	20-NOV-13 15:50	21-NOV-13	02-DEC-13	04-DEC-13
Matrix Aqueous Aqueous	Product S COURIER-BILLING S SW8260-S	Hold Date (shortest) 04-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-2	RS-MW2-112013	20-NOV-13 15:35	21-NOV-13	02-DEC-13	04-DEC-13
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 04-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-3	RS-MW3-112013	20-NOV-13 14:25	21-NOV-13	02-DEC-13	04-DEC-13
<i>Matrix</i> Aqueous	Product S SW8260-S	Hold Date (shortest) 04-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-4	RS-MW4-112113	21-NOV-13 10:55	21-NOV-13	02-DEC-13	04-DEC-13
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 05-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-5	RS-MW5-112113	21-NOV-13 10:35	21-NOV-13	02-DEC-13	04-DEC-13
<i>Matrix</i> Aqueous	Product S SW8260-S	Hold Date (shortest) 05-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-6	RS-MW6-112013	20-NOV-13 14:30	21-NOV-13	02-DEC-13	04-DEC-13
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 04-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments
SG9180-7	RS-MW7-112013	20-NOV-13 13:10	21-NOV-13	02-DEC-13	04-DEC-13
<i>Matrix</i> Aqueous	Product S SW8260-S	Hold Date (shortest) 04-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments



0000024



## Login Chain of Custody Report (Ino1)

Nov. 23, 2013 09:00 AM

Login Number: SG9180

Quote/Incoming: AECOM-NPWE40-04

Account: METCAL001

NoWeb

**AECOM Environment** 

Project: AECOM-NPWE40-04

NAVSTA Newport CTO WE40-04

Laboratory Sample ID		Collect r Date/Time	Receive Date PR	Verbal Due Date Dat		
SG9180-8	RS-MW8-112013	20-NOV-13 13:00	21-NOV-13	02-[	DEC-13	
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 04-DEC-13	<i>Bottle Type</i> 40mL Vial+HCl	Bottle Count	Comments	
SG9180-9	FD-GW-112113	21-NOV-13 10:40	21-NOV-13	02-0	EC-13	
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 05-DEC-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments	
SG9180-10	TB-GW-110813	08-NOV-13 11:00	21-NOV-13	02-0	EC-13	
Matrix Aqueous	Product S SW8260-S	Hold Date (shortest) 22-NOV-13	Bottle Type 40mL Vial+HCl	Bottle Count	Comments	
SG9180-11	IDW-GW-112113	21-NOV-13 11:00	21-NOV-13	02-0	EC-13	
Matrix Aqueous	Product P RCRA-METALS	Hold Date (shortest)	Bottle Type	Bottle Count	Comments	
SW3010-1 SW6010-0 SW6010-3		SW6010-ARSENIC SW6010-CHROMIUM SW6010-SILVER	SW6010-BARIUM SW6010-LEAD SW7470-MERCURY			
Aqueous Aqueous Aqueous Aqueous	S SW1010-IGNITABILITY S SW8015M-GRO S SW8015M-TPH S SW8260-S	05-DEC-13 05-DEC-13 28-NOV-13 05-DEC-13	250mL Plastic 40mL Vial+HCl 1L N-Amber Glass 40mL Vial+HCl			

Total Samples: 11 Total Analyses: 16

0000025

Page: 2 of 2

Container Trans		for SG9044	NA 140-440-440-440-440-440-440-440-440-440-			
Samplenum SG9044-1						
Container Id SG904	14-1A	Containertype	40 mL Vial+D	I+MEOH	Matrix	SL
Product SW8260-S						
Transferdate	From	To	Analyst	Custody 1	Break Co	mments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N		
Container Id SG904	14-1B	Containertype			Matrix	ST.
Product SW8260-S						
Transferdate	From	То	Analyst	Custody F	Bresk Co	mments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N .	oreax or	MittleHCS
Container Id SG904	= = = = .	Containertype	100g Glass	N	Matrix	. CT
Product SW8015M-GRO		container cype	100g Grass	1	MACLIX	. SL
Transferdate	From	То	Analuat	Constant of	Dun - 1: ~	
19-NOV-13 09:55	LOGIN		Analyst	Custody F	этеак Со	mments
22-NOV-13 12:33	VOA FRIDGE1	VOA_FRIDGE1 GC	GNICKERSON JPRESCOTT	N		
Container Id SG904	-	Containertype	100g Glass	N	Matrix	. CT
Product SW8015M-GRO		oon outside cype	rood grass		MACLIA	54
Transferdate	From	То	Analust	C		
19-NOV-13 09:55	LOGIN		Analyst	Custody E	sreak Co	mments
Container Id SG904		VOA_FRIDGE1	GNICKERSON	N	50. 1 ·	~-
Product TS, SW8015M		Containertype	2oz Glass		Matrix	SL
Transferdate						
	From	То	Analyst	Custody F	Break Co	mments
19-NOV-13 09:55 20-NOV-13 12:12	LOGIN	WALK-IN	GNICKERSON	N		
20-NOV-13 12:12 20-NOV-13 12:58	WALK-IN WET CHEMISTRY	WET CHEMISTRY WALK-IN	KPAWLINA	N .		
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	KPAWLINA WSTONE	n N		
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	n N		
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	N		
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N		
amplenum SG9044-2						
Container Id SG904	4-2A	Containertype	40 mL Vial+DI	+меон	Matrix	SL
Product sw8260-s		<b></b>		<del></del>	·	<del></del>
Transferdate	From	То	Analyst	Custody B	reak Co	mments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N		
Container Id SG904		Containertype	40 mL Vial+DI		Matrix	QT.
Product sw8260-s			, , , , , , , , , , , , , , , , , , , ,			
Transferdate	From	То	Analyst	Custody B	rank Co	
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON			mments
Container Id SG904		Containertype	100g Glass	N	Materie-	<b>C</b> T
Product SW8015M-GRO	- <del></del>	oourgamer clibe	tord Grass		Matrix	an.
	From	T-0	Appleet	O		
Transferdate	From	То	Analyst	Custody B	reak Con	mments
	From LOGIN VOA FRIDGE1	TO VOA_FRIDGE1 GC	Analyst GNICKERSON JPRESCOTT	Custody B N	reak Con	mments

Container Id SG90	44-2D	Containertype	100g Glass	Matrix SL
Product SW8015M-GR	ю			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG90	44-2E	Containertype	2oz Glass	Matrix SL
Product TS, SW8015	M-TPH			
Transferdate	From	То	Analyst	Custody Break Comments

Transferdate	From	То	Analyst	Custody Break	Comment
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N	
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	KPAWLINA	N	
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N	
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	WSTONE	N	
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	พ	

Samplenum	SG9044-2
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Samplenum SG9044-2				
Container Id SG904	4-2E	Containertype	2oz Glass	Matrix SL
Product TS, SW8015M-	-TPH			esta bia, att. biad
Transferdate	From	То	Analyst	Custody Prosk Comments
29-NOV-13 08:15	WALK-IN	ORGANIC PREP		Custody Break Comments
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN JSPEARIN	N N
Samplenum SG9044-3		773227 227	OUI EARTH	N.
Container Id SG904	1 3 h	Contrinentume	40	NT (NTION 18 1 1 1 7 7 7 1
Product SW8260-s	JA	Containertype	40 mL Vial+D	OI+MEOH Matrix SL
	_			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	I-3B	Containertype	40 mL Vial+D	OI+MEOH Matrix SL
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	1-3C	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO			-	
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA FRIDGE1	GC	JPRESCOTT	N N
Container Id SG9044	I-3D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				Macter Du
Transferdate	From	То	Analyst	Ough du Dunch G
19-NOV-13 09:55	LOGIN	77-V/107-10-10-10-10-10-10-10-10-10-10-10-10-10-	La del Brahambar anno marriago que regenera que que parte para de la delición de la companya de	Custody Break Comments
Container Id SG9044		VOA_FRIDGE1	GNICKERSON	N
Product TS, SW8015M-		Containertype	2oz Glass	Matrix SL
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12 20-NOV-13 12:58	WALK-IN	WET CHEMISTRY	KPAWLINA	N
25-NOV-13 10:00	WET CHEMISTRY WALK-IN	WALK-IN ORGANIC PREP	KPAWLINA	N 
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	WSTONE KFARR	n N
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	N
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N
Samplenum SG9044-4				
Container Id SG9044	4A	Containertype	40 mt. Wislan	TAMEOU Motorio OT
Product sw8260-s		concurrer cype	40 MIL VIGITD.	I+MEOH Matrix SL
Transferdate	From	m -		
19-NOV-13 09:55	WOM	To	Analyst	Custody Break Comments
Container Id SG9044	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Product SW8260-S	40	Containertype	40 mL Vial+D	I+MEOH Matrix SL
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	-4C	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA_FRIDGE1	GC	JPRESCOTT	N
Container Id SG9044-	-4D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO			<del></del>	· · · · · · · · · · · · · · · · · · ·
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044-		Containertype		
				Matrix SL

#### Samplenum SG9044-4

Samplenum SG9044-4				
Container Id SG9044	-4E	Containertype	2oz Glass	Matrix SL
Product TS, SW8015M-	ТРН			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	KPAWLINA	N N
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	WSTONE	-
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	n
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	n
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N
Samplenum SG9044-5				
Container Id SG9044	-5A	Containertype	40 mL Vial+D	I+MEOH Matrix SL
Product sw8260-s				
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044	~5B	Containertype	40 mL Vial+D1	I+MEOH Matrix SL
Product sw8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044		Containertype	100g Glass	Matrix SL
Product SW8015M-GRO		concarner cype	1009 GIASS	MACLIX SI
Transferdate	From	m -		
as a construction of the state		To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA_FRIDGE1	GC	JPRESCOTT	N
Container Id SG9044	-5D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	-5E	Containertype	<b>2oz Glass</b>	Matrix SL
Product TS, SW8015M-1	TPH			
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	KPAWLINA	N
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	WSTONE	N
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	N
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	N
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N
Samplenum SG9044-6				
Container Id SG9044	-6A	Containertype	40 mL Vial+DI	+MEOH Matrix SL
Product sw8260-s				,
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044	-6B	Containertype		
Product sw8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044-	-6C	Containertype		Matrix SL
Product SW8015M-GRO		<b>4.</b>	_	<b></b>
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA_FRIDGE1	GC	JPRESCOTT	N
Container Id SG9044-	-	Containertype		Matrix SL

S	amp	lenum	SG9	04	4-6
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Samplenum SG9044-6				
Container Id SG9044	1-6D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO			-	
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	PINTO MAN OF ANALON MAN AND ANALON AND ANALO	GNICKERSON	THE PARTY AND A SECTION OF THE PARTY OF THE
Container Id SG9044		VOA_FRIDGE1 Containertype		N
		Containertype	2oz Glass	Matrix SL
Product TS, SW8015M-				
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	KPAWLINA	N
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 10:00 25-NOV-13 12:02	WALK-IN ORGANIC PREP	ORGANIC PREP	WSTONE	N
29-NOV-13 12:02 29-NOV-13 08:15	WALK-IN	WALK-IN ORGANIC PREP	KFARR	N 
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN JSPEARIN	n n
Samplenum SG9044-7	01(0111110 111011	MADIN IM	OSPEARIN	N
<del></del>	- <del>-</del>			
Container Id SG9044	- /A	Containertype	40 mL Vial+D	I+MEOH Matrix SL
Product sw8260-s		•		
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044	-7B	Containertype	40 mL Vial+D	I+MEOH Matrix SL
Product sw8260-s		**		
Transferdate	From	То	Analyst	Custody Brook Comments
19-NOV-13 09:55	LOGIN			Custody Break Comments
Container Id SG9044		VOA_FRIDGE1	GNICKERSON	N
	- /C	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA_FRIDGE1	GC	JPRESCOTT	N
Container Id SG9044	-7D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9044	-7E	Containertype	2oz Glass	Matrix SL
Product TS, SW8015M-1	TPH			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN		THE RESIDENCE OF THE PARTY OF T
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	GNICKERSON KPAWLINA	N N
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	WSTONE	N
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	n
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	N
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	n
Samplenum SG9044-8				
Container Id SG9044	-8A	Containertype	40 ml Vial+D	I+MEOH Matrix SL
Product sw8260-s	<del></del>		10 1111 124210.	. HEGH MACLIA SI
Transferdate	From	m o	D	
For condition to the section of the		To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	-o¤	Containertype	40 mL Vial+D1	I+MEOH Matrix SL
Product sw8260-s				
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	-8C	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO				

Samp	lenum	SG9	044	I - 8
	<b></b>	343	U-27	ı – o

Samplenum SG9044-8				
Container Id SG904		Containertype	100g Glass	Matrix SL
Product SW8015M-GRC	)			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
22-NOV-13 12:33	VOA_FRIDGE1	GC	JPRESCOTT	N
Container Id SG904	14-8D	Containertype	100g Glass	Matrix SL
Product SW8015M-GRO	)			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG904		Containertype		Matrix SL
Product TS, SW8015M		comparate cype	LUZ GIGSS	Macilia Si
Transferdate	From	m _		
		To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12 20-NOV-13 12:58	WALK-IN	WET CHEMISTRY	KPAWLINA	N
25-NOV-13 12:38 25-NOV-13 10:00	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 12:02	WALK-IN ORGANIC PREP	ORGANIC PREP WALK-IN	WSTONE	N 
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	KFARR	N
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N
Samplenum SG9044-9	0110111110 11101	WALK IN	JSPEARIN	N
Container Id SG904	4-9A	Containertype	40 mT. Vial+F	OI+MEOH Matrix SL
Product SW8260-S		00110211020110	TO ME VICELLE	TIMEON MACTIK SI
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG904	4-9B	Containertype		<del></del>
Product sw8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG904	4-9C	Containertype		 Matrix SL
Product sw8015M-GRO				raciin on
Transferdate	From	То	Analwat	Custadu Bresk Comment
19-NOV-13 09:55	***************************************		Analyst	Custody Break Comments
22-NOV-13 12:33	LOGIN VOA FRIDGE1	VOA_FRIDGE1 GC	GNICKERSON	N 
Container Id SG904	_ ,	Containertype	JPRESCOTT	N N
Product SW8015M-GRO	4- <i>3</i> ,0	containertype	100g Glass	Matrix SL
	_			
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	n
Container Id SG904		Containertype	<b>2oz Glass</b>	Matrix SL
Product Ts, SW8015M-	-ТРН			
Transferdate	From	To	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	WALK-IN	GNICKERSON	N
20-NOV-13 12:12	WALK-IN	WET CHEMISTRY	KPAWLINA	N
20-NOV-13 12:58	WET CHEMISTRY	WALK-IN	KPAWLINA	N
25-NOV-13 10:00	WALK-IN	ORGANIC PREP	WSTONE	N
25-NOV-13 12:02	ORGANIC PREP	WALK-IN	KFARR	N
29-NOV-13 08:15	WALK-IN	ORGANIC PREP	JSPEARIN	N
29-NOV-13 11:15	ORGANIC PREP	WALK-IN	JSPEARIN	N
Samplenum SG9044-10				
Container Id SG9044	I-10A	Containertype	40 mL Vial+D	I+MEOH Matrix SL
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
19-NOV-13 09:55	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9044	I-10B	Containertype	40 mL Vial+D	

Katahdin Analytical Services, Inc.
Container Transfer History for SG9044

Samplenum SG9044-10

Container Id SG9044-10B Containertype 40 mL Vial+DI+MEOH Matrix SL

Product SW8260-S

Transferdate From To Analyst Custody Break Comments

N

19-NOV-13 09:55 LOGIN VOA\_FRIDGE1 GNICKERSON

Samplenum S	G9	18	0	-1
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Samplenum SG9180-1				
Container Id SG9180	-1A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N
27-NOV-13 11:59	VOA FRIDGE1	GC/MS	RCROCKER	N
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N
Container Id SG9180	-1B	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s				
Transferdate	From	To	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N
Container Id SG9180	-1C	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN		GNICKERSON	The state of the s
Samplenum SG9180-2	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9180	2n	Contrinontimo	40mL Vial+HCl	Matrin 30
Product SW8260-S	-2A	Containertype	40ML VIAITACI	Matrix AQ
Transferdate	From	То	Analyet	Custody Brook Commonts
22-NOV-13 13:15			Analyst	Custody Break Comments
27-NOV-13 13:15 27-NOV-13 11:59	LOGIN VOA FRIDGE1	VOA_FRIDGE1 GC/MS	GNICKERSON RCROCKER	N N
29-NOV-13 11:24	GC/MS	VOA FRIDGE1	RCROCKER	N
Container Id SG9180	•	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN			
Container Id SG9180		VOA_FRIDGE1 Containertype	GNICKERSON 40mL Vial+HCl	N Matrix 30
	-20	container cype	AOWED ATSTAUCT	Matrix AQ
Product SW8260-S	_		_	
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Samplenum SG9180-3				
Container Id SG9180	-3A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
27-NOV-13 11:59	VOA_FRIDGE1	GC/MS	RCROCKER	N
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N
Container Id SG9180	-3B	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s				
Transferdate	From	To	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9180-	-3C	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Samplenum SG9180-4				
Container Id SG9180-	-4A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-s				_
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N
27-NOV-13 11:59	VOA_FRIDGE1	GC/MS	RCROCKER	N
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N
Container Id SG9180-	-4B	Containertype	40mL Vial+HCl	Matrix AQ

Samplen	um SGS	911	80-	-4
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Samplenum SG9180-4					
Container Id SG9180	-4B	Containertype	40mL Vial+HCl	Matrix :	AQ.
Product sw8260-s					
Transferdate	From	To	Analyst	Custody Break Com	ments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N	
Container Id SG9180	-4C	Containertype	40mL Vial+HCl	Matrix 2	AQ
Product sw8260-s					
Transferdate	From	То	Analyst	Custody Break Com	ments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N	
Samplenum SG9180-5		_			
Container Id SG9180	-5A	Containertype	40mL Vial+HCl	Matrix 2	<b>A</b> O
Product SW8260-s			720273302	in or all	·-×
Transferdate	From	То	Analyst	Custody Break Comm	ments
22-NOV-13 13:15	LOGIN		GNICKERSON	N	
27-NOV-13 11:59	VOA FRIDGE1	VOA_FRIDGE1 GC/MS	RCROCKER	N N	
29-NOV-13 11:24	GC/MS	VOA FRIDGE1	RCROCKER	N	
Container Id SG9180	-5B	Containertype	40mL Vial+HCl	Matrix 2	AQ
Product sw8260-s					_
Transferdate	From	То	Analyst	Custody Break Com	ments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N	
Container Id SG9180-	-5C	Containertype	40mL Vial+HCl	Matrix A	AQ
Product SW8260-S					_
Transferdate	From	То	Analyst	Custody Break Com	nents
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N	
Samplenum SG9180-6		_			
Container Id SG9180	-6A	Containertype	40mL Vial+HCl	Matrix A	AO.
Product SW8260-S			724211102		···×
Transferdate	From	То	Analyst	Custody Break Comr	ments
22-NOV-13 13:15	LOGIN	····	GNICKERSON	N	Herres
27-NOV-13 11:59	VOA FRIDGE1	VOA_FRIDGE1 GC/MS	RCROCKER	N N	
29-NOV-13 11:24	GC/MS	VOA FRIDGE1	RCROCKER	N	
Container Id SG9180-	-6B	Containertype	40mL Vial+HCl	Matrix A	AQ
Product sw8260-s					
Transferdate	From	То	Analyst	Custody Break Comm	nents
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N	The second of th
Container Id SG9180-	-6C	Containertype	40mL Vial+HCl	Matrix A	AQ
Product sw8260-s					
Transferdate	From	То	Analyst	Custody Break Comm	nents
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N	t i Mathada na ankana na antana na mana na man
Samplenum SG9180-7		_	•		
Container Id SG9180-	-7A	Containertype	40mL Vial+HCl	Matrix A	OA
Product SW8260-S					- <b>-</b>
Transferdate	From	To	Analyst	Custody Break Comm	nents
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N	
27-NOV-13 11:59	VOA_FRIDGE1	GC/MS	RCROCKER	N	
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N	
Container Id SG9180-	·7B	Containertype	40mL Vial+HCl	Matrix A	łQ
Product sw8260-s					
Transferdate	From	То	Analyst	Custody Break Comm	nents
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N	
Container Id SG9180-	·7C	Containertype	40mL Vial+HCl	Matrix A	ĄQ
Product SW8260-S					

Samplenum	SG9180-	.7
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Container Id SG9180	-7C	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s		<del></del>		•
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N
Samplenum SG9180-8		<del>-</del> .*		_
Container Id SG9180	-8A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA FRIDGE1	GNICKERSON	N
27-NOV-13 11:59	VOA FRIDGE1	GC/MS	RCROCKER	N
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N
Container Id SG9180	-8B	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG9180	-8C	Containertype	40mL Vial+HCl	Matrix AQ
Product sw8260-s				
Transferdate	From	To	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Samplenum SG9180-9		_		
Container Id SG9180-	-9A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				<b></b>
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
27-NOV-13 11:59	VOA_FRIDGE1	GC/MS	RCROCKER	N
29-NOV-13 11:24	GC/MS	VOA_FRIDGE1	RCROCKER	N
Container Id SG9180-	-9B	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				
<i>Product sw8260-s</i> Transferdate	From	То	Analyst	Custody Break Comments
	From	To VOA_FRIDGE1	Analyst GNICKERSON	Custody Break Comments
Transferdate	LOGIN		GNICKERSON	
Transferdate 22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Transferdate 22-NOV-13 13:15 Container Id SG9180-	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S	LOGIN -9C	VOA_FRIDGE1 Containertype	GNICKERSON 40mL Vial+HCl	N Matrix AQ
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate	LOGIN -9C From	VOA_FRIDGE1 Containertype To	GNICKERSON 40mL Vial+HCl Analyst	N Matrix AQ Custody Break Comments
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15	LOGIN -9C From LOGIN	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1	GNICKERSON 40mL Vial+HCL Analyst GNICKERSON	N Matrix AQ Custody Break Comments
Transferdate 22-NOV-13 13:15 Container Id SG9180- Product SW8260-S Transferdate 22-NOV-13 13:15 Samplenum SG9180-10	LOGIN -9C From LOGIN	VOA_FRIDGE1 Containertype To	GNICKERSON 40mL Vial+HCL Analyst GNICKERSON	N Matrix AQ Custody Break Comments
Transferdate 22-NOV-13 13:15 Container Id SG9180- Product SW8260-S Transferdate 22-NOV-13 13:15 Samplenum SG9180-10 Container Id SG9180-	LOGIN -9C From LOGIN	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1	GNICKERSON 40mL Vial+HCL Analyst GNICKERSON	N Matrix AQ Custody Break Comments N Matrix AQ
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S	LOGIN -9C From LOGIN -10A	VOA_FRIDGE1 Containertype To VOA_FRIDGE1 Containertype To	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S  Transferdate	LOGIN -9C From LOGIN -10A From	VOA_FRIDGE1 Containertype To VOA_FRIDGE1 Containertype	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl	N Matrix AQ Custody Break Comments N Matrix AQ
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15 27-NOV-13 11:59 29-NOV-13 11:24	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst GNICKERSON RCROCKER RCROCKER	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst GNICKERSON RCROCKER	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15 27-NOV-13 11:59 29-NOV-13 11:24	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst GNICKERSON RCROCKER RCROCKER	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  N
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst GNICKERSON RCROCKER RCROCKER	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  N
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS 10B	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1  Containertype	GNICKERSON 40mL Vial+HCl Analyst GNICKERSON 40mL Vial+HCl Analyst GNICKERSON RCROCKER RCROCKER RCROCKER 40mL Vial+HCl	Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  N  Matrix AQ
Transferdate  22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180- Product SW8260-S  Transferdate  22-NOV-13 11:24  Container Id SG9180- Product SW8260-S  Transferdate	LOGIN -9C From LOGIN -10A From LOGIN VOA_FRIDGE1 GC/MS 10B From	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1  Containertype  To	Analyst GNICKERSON  Analyst GNICKERSON  40mL Vial+HCl  Analyst GNICKERSON RCROCKER RCROCKER RCROCKER 40mL Vial+HCl  Analyst	Matrix AQ  Custody Break Comments  Matrix AQ  Custody Break Comments  N  N  Matrix AQ  Custody Break Comments  Custody Break Comments
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15	LOGIN -9C  From LOGIN -10A  From LOGIN VOA_FRIDGE1 GC/MS -10B  From LOGIN	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1  Containertype  To	Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON RCROCKER RCROCKER 40mL Vial+HCl  Analyst GNICKERSON	Matrix AQ  Custody Break Comments  Matrix AQ  Custody Break Comments  N  N  Matrix AQ  Custody Break Comments  Custody Break Comments
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-11	LOGIN -9C  From LOGIN -10A  From LOGIN VOA_FRIDGE1 GC/MS -10B  From LOGIN	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype	Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON RCROCKER RCROCKER 40mL Vial+HCl  Analyst GNICKERSON	Matrix AQ  Custody Break Comments  Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  N  Custody Break Comments  N
Transferdate  22-NOV-13 13:15  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  27-NOV-13 11:59  29-NOV-13 11:24  Container Id SG9180-  Product SW8260-S  Transferdate  22-NOV-13 13:15  Samplenum SG9180-11  Container Id SG9180-11  Container Id SG9180-	LOGIN -9C  From LOGIN -10A  From LOGIN VOA_FRIDGE1 GC/MS -10B  From LOGIN	VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  GC/MS  VOA_FRIDGE1  Containertype  To  VOA_FRIDGE1  Containertype	Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON  Analyst GNICKERSON RCROCKER RCROCKER 40mL Vial+HCl  Analyst GNICKERSON	Matrix AQ  Custody Break Comments  Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  N  Custody Break Comments  N
Transferdate 22-NOV-13 13:15  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15  Samplenum SG9180-10  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15 27-NOV-13 11:59 29-NOV-13 11:24  Container Id SG9180- Product SW8260-S  Transferdate 22-NOV-13 13:15 Samplenum SG9180-11  Container Id SG9180-11  Container Id SG9180-Product SW8260-S	LOGIN -9C  From LOGIN -10A  From LOGIN VOA_FRIDGE1 GC/MS -10B  From LOGIN	VOA_FRIDGE1 Containertype To VOA_FRIDGE1 Containertype To VOA_FRIDGE1 GC/MS VOA_FRIDGE1 Containertype To VOA_FRIDGE1 Containertype Containertype To VOA_FRIDGE1	Analyst GNICKERSON  Analyst GNICKERSON  40mL Vial+HCl  Analyst GNICKERSON RCROCKER RCROCKER 40mL Vial+HCl  Analyst GNICKERSON	Matrix AQ  Custody Break Comments  Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments  N  Matrix AQ  Custody Break Comments

## Container Transfer History for SG9180

## Samplenum SG9180-11

Container Id SG91	180-11A	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S		concarner cype	AONT ATGTITCT	Macila My
Transferdate	From	To	Analyat	Custody Prosk Comments
	***		Analyst	Custody Break Comments
26-NOV-13 14:10  Container Id SG91	GC	VOA_FRIDGE1	JPRESCOTT	N
	.0U-11B	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8260-S				
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
27-NOV-13 11:59 29-NOV-13 11:24	VOA_FRIDGE1	GC/MS	RCROCKER	N
Container Id SG91	GC/MS	VOA_FRIDGE1	RCROCKER	N
Product SW8260-S	.80-110	Containertype	40mL Vial+HCl	Matrix AQ
Transferdate	T1	m		
	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG91		Containertype	40mL Vial+HCl	Matrix AQ
Product SW8015M-GR	20			
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Container Id SG91	80-11E	Containertype	40mL Vial+HCl	Matrix AQ
Product SW8015M-GR	0			
Transferdate	From	То	Analyst	Custody Break Comments
22-NOV-13 13:15	LOGIN	VOA_FRIDGE1	GNICKERSON	N
Contained TA COOL	00_11m	Containertime	40mL Vial+HCl	Makulu 30
Container Id SG91	90-11E	contrarmer cybe	AOUNT ATTITUT	Matrix AQ
Product SW8015M-GR		container type	40WH AISTANCT	matrix AQ
		To	Analyst	Custody Break Comments
Product SW8015M-GR	0			-
Product SW8015M-GR Transferdate	O From LOGIN	To VOA_FRIDGE1	Analyst	Custody Break Comments
Product SW8015M-GR Transferdate 22-NOV-13 13:15 Container Id SG91	O From LOGIN 80-11G CURY, SW6010-SELEN	To  VOA_FRIDGE1  Containertype	Analyst GNICKERSON 250mL Plastic	Custody Break Comments
Product SW8015M-GR Transferdate 22-NOV-13 13:15 Container Id SG91 Product SW7470-MER	O From LOGIN 80-11G CURY, SW6010-SELEN	To  VOA_FRIDGE1  Containertype	Analyst GNICKERSON 250mL Plastic	Custody Break Comments N -HNO3 Matrix AQ
Product SW8015M-GR Transferdate 22-NOV-13 13:15 Container Id SG91 Product SW7470-MER SW6010-CHRO	O From LOGIN 80-11G CURY, SW6010-SELENIMIUM	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010	Custody Break Comments  N -HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,
Product SW8015M-GR Transferdate 22-NOV-13 13:15 Container Id SG91 Product SW7470-MER: SW6010-CHRO. Transferdate 22-NOV-13 13:06 25-NOV-13 10:08	From LOGIN 80-11G CURY, SW6010-SELENI MIUM From	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To	Analyst GNICKERSON 250mL Plastict W6010-LEAD, SW6010 Analyst	Custody Break Comments  N -HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM, Custody Break Comments
Product SW8015M-GR Transferdate 22-NOV-13 13:15  Container Id SG91  Product SW7470-MER: SW6010-CHRO.  Transferdate 22-NOV-13 13:06 25-NOV-13 10:08 25-NOV-13 12:45	From LOGIN 80-11G CURY, SW6010-SELENI MIUM From LOGIN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON	Custody Break Comments  N -HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM, Custody Break Comments N
Product SW8015M-GR Transferdate 22-NOV-13 13:15  Container Id SG91  Product SW7470-MER: SW6010-CHRO. Transferdate 22-NOV-13 13:06 25-NOV-13 10:08 25-NOV-13 12:45 26-NOV-13 09:11	From LOGIN  80-11G  CURY, SW6010-SELENI MIUM  From LOGIN WALK-IN METALS PREP WALK-IN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP  WALK-IN  METALS PREP	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM, Custody Break Comments  N N
Product SW8015M-GR Transferdate 22-NOV-13 13:15  Container Id SG91  Product SW7470-MER: SW6010-CHRO.  Transferdate 22-NOV-13 13:06 25-NOV-13 10:08 25-NOV-13 12:45 26-NOV-13 09:11 26-NOV-13 11:26	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N
Product SW8015M-GR Transferdate 22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHRO  Transferdate 22-NOV-13 13:06 25-NOV-13 10:08 25-NOV-13 12:45 26-NOV-13 09:11 26-NOV-13 11:26  Container Id SG91	From LOGIN  80-11G  CURY, SW6010-SELEN: MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM, Custody Break Comments  N N N N
Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER:	From LOGIN  80-11G  CURY, SW6010-SELEND  MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H	TO  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  TO  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  Containertype	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM, Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHROW  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 12:45  26-NOV-13 09:11  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPR  Transferdate	From LOGIN  80-11G  CURY, SW6010-SELEN: MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  H	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  Containertype  To	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N Custody Break Comments  Custody Break Comments  Custody Break Comments
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHROW  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 12:45  26-NOV-13 09:11  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 11:35	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  FROM LOGIN WALK-IN METALS PREP WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN	TO  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  TO  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  Containertype  TO  WALK-IN	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON	Custody Break Comments  N -HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  #### Product SW7470-MER:	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  FROM LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN H	TO  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  TO  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  Containertype  TO  WALK-IN	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N Custody Break Comments  N N N Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHROW  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 12:45  26-NOV-13 09:11  26-NOV-13 11:26  Container Id SG91:  #### Product SW8015M-TPI Transferdate  22-NOV-13 11:35  Container Id SG91:  Product SW8015M-TPI  Transferdate  22-NOV-13 11:35  Container Id SG91:  Product SW8015M-TPI  **Product SW8015M-TPI **	From LOGIN  80-11G  CURY, SW6010-SELENIMIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP WALK-IN METALS PREP H  From LOGIN  80-11I	TO  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  TO  WALK-IN  METALS PREP  WALK-IN  METALS PREP  WALK-IN  Containertype  To  WALK-IN  Containertype	Analyst GNICKERSON 250mL Plastic+ W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON 1L N-Amber Gla	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHRON  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 12:45  26-NOV-13 09:11  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPN  Transferdate  22-NOV-13 11:35  Container Id SG91  Product SW8015M-TPN  Transferdate  1 Transferdate  Transferdate	From LOGIN  80-11G  CURY, SW6010-SELEN: MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  BO-11I H	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To	Analyst GNICKERSON 250mL Plastice W6010~LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON 1L N-Amber Gla Analyst Analyst Analyst	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N N N N N N M N N M N M N N M M N M
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHRON  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 10:08  25-NOV-13 10:45  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPN  Transferdate  22-NOV-13 11:35  Container Id SG91  Product SW8015M-TPN  Transferdate  22-NOV-13 13:06	From LOGIN  80-11G  CURY, SW6010-SELEN: MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  B0-11I  From LOGIN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN	Analyst GNICKERSON 250mL Plastic- W6010~LEAD, SW6010  Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN 1L N-Amber Gla  Analyst GNICKERSON 1L N-Amber Gla  Analyst GNICKERSON 1L N-Amber Gla  Analyst GNICKERSON	Custody Break Comments  N -HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER:	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  FROM LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  80-11I  From LOGIN 80-11J	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To	Analyst GNICKERSON 250mL Plastic- W6010~LEAD, SW6010  Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN 1L N-Amber Gla  Analyst GNICKERSON 1L N-Amber Gla  Analyst GNICKERSON 1L N-Amber Gla  Analyst GNICKERSON	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N N N N N M N N M N M N M
Product SW8015M-GR Transferdate 22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHRON  Transferdate 22-NOV-13 13:06 25-NOV-13 10:08 25-NOV-13 10:08 25-NOV-13 12:45 26-NOV-13 09:11 26-NOV-13 11:26  Container Id SG91:  Product SW8015M-TPN  Transferdate 22-NOV-13 13:06  Container Id SG91:  Product SW8015M-TPN  Transferdate 22-NOV-13 13:06  Container Id SG91:  Product SW8015M-TPN  Transferdate 22-NOV-13 13:06  Container Id SG91:  Product SW1010-IGN1	From LOGIN  80-11G  CURY, SW6010-SELEN: MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  80-11I  From LOGIN  80-11J  ITABILITY	TO  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  TO  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  TO  WALK-IN  Containertype  To  WALK-IN  Containertype	Analyst GNICKERSON 250mL Plastich W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON 1L N-Amber Gla Analyst GNICKERSON 250mL Plastic	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N N SS Matrix AQ  Custody Break Comments  N ASS Matrix AQ  Custody Break Comments  N Matrix AQ  Matrix AQ
Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHROW  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 10:08  25-NOV-13 10:45  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 11:35  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 13:06  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 13:06  Container Id SG918  Product SW1010-IGNI  Transferdate	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  B0-11I  From LOGIN  10GIN  10GIN  10GIN  10GIN  10GIN  10GIN  10GIN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN	Analyst GNICKERSON 250mL Plastich W6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON 1L N-Amber Gla Analyst GNICKERSON 250mL Plastic	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N N N N N N N N N N N N N
### Product SW8015M-GR Transferdate  22-NOV-13 13:15  Container Id SG91  #### Product SW7470-MER:	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  FROM LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  80-11I  From LOGIN  10GIN  10GIN  10GIN  10GIN  10GIN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN  Containertype	Analyst GNICKERSON 250mL Plastich EW6010-LEAD, SW6010 Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla Analyst GNICKERSON 1L N-Amber Gla Analyst GNICKERSON 250mL Plastic Analyst	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N SS Matrix AQ  Custody Break Comments  N ASS Matrix AQ  Custody Break Comments  N Matrix AQ  Matrix AQ
Transferdate  22-NOV-13 13:15  Container Id SG91  Product SW7470-MER SW6010-CHROW  Transferdate  22-NOV-13 13:06  25-NOV-13 10:08  25-NOV-13 10:08  25-NOV-13 10:45  26-NOV-13 11:26  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 11:35  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 13:06  Container Id SG91  Product SW8015M-TPI  Transferdate  22-NOV-13 13:06  Container Id SG918  Product SW1010-IGNI  Transferdate	From LOGIN  80-11G  CURY, SW6010-SELENT MIUM  From LOGIN WALK-IN METALS PREP WALK-IN METALS PREP 80-11H  From LOGIN  B0-11I  From LOGIN  10GIN  10GIN  10GIN  10GIN  10GIN  10GIN  10GIN	To  VOA_FRIDGE1  Containertype  IUM, SW6010-SILVER, S  To  WALK-IN  METALS PREP WALK-IN  METALS PREP WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN  Containertype  To  WALK-IN  Containertype	Analyst GNICKERSON  250mL Plastich EW6010-LEAD, SW6010  Analyst GNICKERSON HHENNINGSEN EMORGAN EMORGAN EMORGAN 1L N-Amber Gla  Analyst GNICKERSON 1L N-Amber Gla  Analyst GNICKERSON 250mL Plastic  Analyst GNICKERSON	Custody Break Comments  N HNO3 Matrix AQ -CADMIUM, SW6010-ARSENIC, SW6010-BARIUM,  Custody Break Comments  N N N N N N SS Matrix AQ  Custody Break Comments  N LSS Matrix AQ  Custody Break Comments  N Matrix AQ  Custody Break Comments  N Matrix AQ  Custody Break Comments  N Matrix AQ

Page

## **VOLATILES DATA**

## **QC Summary Section**





## Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: AQ

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. ID I	BFB #	DBF #	DCA #	TOL #
RS-MW1-112013	SG9180-1		93.0	92.4	92.3	95.7
TB-GW-110813	SG9180-10		100.	99.1	97.0	103.
IDW-GW-112113	SG9180-11	!	97.4	97.3	100.	99.0
RS-MW2-112013	SG9180-2	!	97.1	95.2	92.4	99.7
RS-MW3-112013	SG9180-3	!	95.4	93.7	93.2	98.0
RS-MW4-112113	SG9180-4	!	94.4	92.1	94.0	96.8
RS-MW5-112113	SG9180-5	!	98.8	96.9	97.8	102.
RS-MW6-112013	SG9180-6	!	94.2	97.4	94.6	97.6
RS-MW7-112013	SG9180-7	!	99.4	99.8	101.	102.
RS-MW8-112013	SG9180-8	!	95.6	98.1	100.	98.0
FD-GW-112113	SG9180-9	!	94.2	99.2	101.	98.2
Laboratory Control S	WG134916-1	!	91.2	85.8	90.0	90.7
Method Blank Sample	WG134916-2		87.6	92.4	97.5	91.4
Laboratory Control S	WG134993-1	!	91.0	86.1	86.3	93.3
Method Blank Sample	WG134993-2		87.0	87.9	86.9	91.7
Laboratory Control S	WG135258-1		102.	88.5	83.1	99.4
Method Blank Sample	WG135258-2	!	98.6	96.1	94.4	100.

		QC Limits
DCA	1,2-DICHLOROETHANE-D4	70-120
BFB	P-BROMOFLUOROBENZENE	75-120
DBF	DIBROMOFLUOROMETHANE	85-115
TOL	TOLUENE-D8	85-120

<sup># =</sup> Column to be used to flag recovery limits.

600 Technology Way P.O. Box 540, Scarborough, ME 04070 Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com sales@katahdinlab.com

<sup>\* =</sup> Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





## Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: SL

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. ID	BFB #	DBF #	DCA #	TOL #
TB-SO-110813	SG9044-10DL		88.8	87.9	95.4	92.5
RS-SB1-111413	SG9044-1DL		88.8	80.8	87.0	93.1
RS-SB2-111513	SG9044-2DL		88.9	86.2	88.6	92.9
RS-SB3-111513	SG9044-3DL		88.8	82.6	84.8	92.0
RS-SB4-111813	SG9044-4DL		86.8	81.9	84.9	92.2
RS-SB5-111813	SG9044-5DL		101.	84.6	84.8	92.9
RS-SB6-111513	SG9044-6DL		89.6	82.8	82.8	90.8
RS-SB7-111413	SG9044-7DL		88.8	83.8	81.8	91.3
RS-SB8-111413	SG9044-8DL		88.3	82.2	81.6	92.3
FD-SO-111813	SG9044-9DL		98.6	82.4	81.4	92.3
Methanol Blank	WG134916-5		88.1	89.9	99.0	92.1
Methanol Blank	WG134993-5		87.4	84.3	86.2	91.6

		QC Limits
DBF	DIBROMOFLUOROMETHANE	64-130
TOL	TOLUENE-D8	85-115
BFB	P-BROMOFLUOROBENZENE	85-120
DCA	1,2-DICHLOROETHANE-D4	58-134

<sup># =</sup> Column to be used to flag recovery limits.

<sup>\* =</sup> Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





# Form 4 Method Blank Summary - VOA

Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Lab Sample ID : WG134916-2

Lab File ID : C4422.DDate Analyzed : 22-NOV-13Instrument ID : GCMS-CTime Analyzed : 11:04

Heated Purge: No

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG134916-1	C4418.D	11/22/13	08:59
Methanol Blank	WG134916-5	C4423.D	11/22/13	11:36
TB-SO-110813	SG9044-10DL	C4424.D	11/22/13	12:07





# Form 4 Method Blank Summary - VOA

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-04

Lab Sample ID: WG134993-2

Lab File ID: C4448 D

Lab File ID : C4448.DDate Analyzed : 23-NOV-13Instrument ID : GCMS-CTime Analyzed : 10:48

**Heated Purge:** No

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG134993-1	C4445.D	11/23/13	08:57
Methanol Blank	WG134993-5	C4449.D	11/23/13	11:22
RS-SB1-111413	SG9044-1DL	C4450.D	11/23/13	11:55
RS-SB2-111513	SG9044-2DL	C4451.D	11/23/13	12:29
RS-SB3-111513	SG9044-3DL	C4452.D	11/23/13	13:02
RS-SB4-111813	SG9044-4DL	C4453.D	11/23/13	13:35
RS-SB5-111813	SG9044-5DL	C4454.D	11/23/13	14:09
RS-SB6-111513	SG9044-6DL	C4455.D	11/23/13	14:42
RS-SB7-111413	SG9044-7DL	C4456.D	11/23/13	15:16
RS-SB8-111413	SG9044-8DL	C4457.D	11/23/13	15:49
FD-SO-111813	SG9044-9DL	C4458 D	11/23/13	16.23





# Form 4 Method Blank Summary - VOA

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-04

Lab Sample ID: WG135258-2

Lab File ID : D6921.DDate Analyzed : 27-NOV-13Instrument ID : GCMS-DTime Analyzed : 12:47

**Heated Purge:** No

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG135258-1	D6918.D	11/27/13	10:44
TB-GW-110813	SG9180-10	D6922.D	11/27/13	13:19
RS-MW1-112013	SG9180-1	D6923.D	11/27/13	13:52
RS-MW2-112013	SG9180-2	D6924.D	11/27/13	14:24
RS-MW3-112013	SG9180-3	D6925.D	11/27/13	14:57
RS-MW4-112113	SG9180-4	D6926.D	11/27/13	15:30
RS-MW5-112113	SG9180-5	D6927.D	11/27/13	16:03
RS-MW6-112013	SG9180-6	D6928.D	11/27/13	16:36
RS-MW7-112013	SG9180-7	D6929.D	11/27/13	17:09
RS-MW8-112013	SG9180-8	D6930.D	11/27/13	17:42
FD-GW-112113	SG9180-9	D6931.D	11/27/13	18:15
IDW-GW-112113	SG9180-11	D6932.D	11/27/13	18:48





Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Date Analyzed : 13-NOV-13

Lab File ID : CB699.DTime Analyzed : 09:33Instrument ID : GCMS-CHeated Purge : No

m/e	Ion Abundance Criteria	% Rel	
50	15.0 - 40.0% of mass 95	19.5	
75	30.0 - 60.0% of mass 95	45.9	
95	Base Peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	6.5	
173	Less than 2.0% of mass 174	0.0	0.0
174	Greater than 50.0% of mass 95	60.1	
175	5.0 - 9.0% of mass 174	4.6	7.64
176	95.0 - 101.0% of mass 174	57.6	95.90
177	5.0 - 9.0% of mass 176	3.8	6.60

1-Value is % mass 174

2-Value is % mass 176

Client Sample ID	<b>Lab Sample ID</b>	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG134365-6	C4228.D	11/13/13	10:01
Initial Calibration	WG134365-5	C4229.D	11/13/13	10:32
Initial Calibration	WG134365-4	C4230.D	11/13/13	11:04
Initial Calibration	WG134365-3	C4231.D	11/13/13	11:35
Initial Calibration	WG134365-2	C4232.D	11/13/13	12:07
Initial Calibration	WG134365-1	C4233.D	11/13/13	12:38
Independent Source	WG134365-7	C4234A.D	11/13/13	13:25





Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Date Analyzed : 22-NOV-13

Lab File ID : CB706.DTime Analyzed : 07:51Instrument ID : GCMS-CHeated Purge : No

m/e	Ion Abundance Criteria	% Rel	
50	15.0 - 40.0% of mass 95	17.9	
75	30.0 - 60.0% of mass 95	46.7	
95	Base Peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	6.0	
173	Less than 2.0% of mass 174	0.0	0.0
174	Greater than 50.0% of mass 95	59.7	
175	5.0 - 9.0% of mass 174	4.4	7.42
176	95.0 - 101.0% of mass 174	57.8	96.97
177	5.0 - 9.0% of mass 176	3.9	6.83

1-Value is % mass 174

2-Value is % mass 176

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG134916-4	C4417.D	11/22/13	08:17
Laboratory Control S	WG134916-1	C4418.D	11/22/13	08:59
Method Blank Sample	WG134916-2	C4422.D	11/22/13	11:04
Methanol Blank	WG134916-5	C4423.D	11/22/13	11:36
TB-SO-110813	SG9044-10DL	C4424.D	11/22/13	12:07





Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Date Analyzed : 23-NOV-13

Lab File ID : CB707.DTime Analyzed : 07:50Instrument ID : GCMS-CHeated Purge : No

m/e	Ion Abundance Criteria	% Rel	
50	15.0 - 40.0% of mass 95	16.5	
75	30.0 - 60.0% of mass 95	46.8	
95	Base Peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	7.1	
173	Less than 2.0% of mass 174	0.0	0.0
174	Greater than 50.0% of mass 95	62.8	
175	5.0 - 9.0% of mass 174	5.0	7.98
176	95.0 - 101.0% of mass 174	61.7	98.17
177	5.0 - 9.0% of mass 176	3.5	5.62

1-Value is % mass 174

2-Value is % mass 176

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG134993-4	C4444.D	11/23/13	08:15
Laboratory Control S	WG134993-1	C4445.D	11/23/13	08:57
Method Blank Sample	WG134993-2	C4448.D	11/23/13	10:48
Methanol Blank	WG134993-5	C4449.D	11/23/13	11:22
RS-SB1-111413	SG9044-1DL	C4450.D	11/23/13	11:55
RS-SB2-111513	SG9044-2DL	C4451.D	11/23/13	12:29
RS-SB3-111513	SG9044-3DL	C4452.D	11/23/13	13:02
RS-SB4-111813	SG9044-4DL	C4453.D	11/23/13	13:35
RS-SB5-111813	SG9044-5DL	C4454.D	11/23/13	14:09
RS-SB6-111513	SG9044-6DL	C4455.D	11/23/13	14:42
RS-SB7-111413	SG9044-7DL	C4456.D	11/23/13	15:16
RS-SB8-111413	SG9044-8DL	C4457.D	11/23/13	15:49
FD-SO-111813	SG9044-9DL	C4458.D	11/23/13	16:23





Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Date Analyzed : 19-NOV-13

Lab File ID : DB246.DTime Analyzed : 08:50Instrument ID : GCMS-DHeated Purge : No

m/e	Ion Abundance Criteria	% Rel	
50	15.0 - 40.0% of mass 95	20.6	
75	30.0 - 60.0% of mass 95	52.3	
95	Base Peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	6.8	
173	Less than 2.0% of mass 174	0.9	1.13
174	Greater than 50.0% of mass 95	81.0	
175	5.0 - 9.0% of mass 174	5.8	7.12
176	95.0 - 101.0% of mass 174	79.3	97.86
177	5.0 - 9.0% of mass 176	5.5	6.99

1-Value is % mass 174

2-Value is % mass 176

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG134694-6	D6750.D	11/19/13	10:08
Initial Calibration	WG134694-5	D6751.D	11/19/13	10:41
Initial Calibration	WG134694-4	D6752.D	11/19/13	11:13
Initial Calibration	WG134694-3	D6753.D	11/19/13	11:46
Initial Calibration	WG134694-2	D6754.D	11/19/13	12:19
Initial Calibration	WG134694-1	D6755.D	11/19/13	12:52
Independent Source	WG134694-12	D6756A.D	11/19/13	13:42





Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Date Analyzed : 27-NOV-13

Lab File ID : DB253.DTime Analyzed : 08:09Instrument ID : GCMS-DHeated Purge : No

m/e	Ion Abundance Criteria	% Rel	
50	15.0 - 40.0% of mass 95	18.9	
75	30.0 - 60.0% of mass 95	52.0	
95	Base Peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	7.3	
173	Less than 2.0% of mass 174	0.4	0.48
174	Greater than 50.0% of mass 95	81.6	
175	5.0 - 9.0% of mass 174	5.4	6.59
176	95.0 - 101.0% of mass 174	79.3	97.13
177	5.0 - 9.0% of mass 176	4.9	6.13

1-Value is % mass 174

2-Value is % mass 176

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG135258-4	D6916.D	11/27/13	09:16
Laboratory Control S	WG135258-1	D6918.D	11/27/13	10:44
Method Blank Sample	WG135258-2	D6921.D	11/27/13	12:47
TB-GW-110813	SG9180-10	D6922.D	11/27/13	13:19
RS-MW1-112013	SG9180-1	D6923.D	11/27/13	13:52
RS-MW2-112013	SG9180-2	D6924.D	11/27/13	14:24
RS-MW3-112013	SG9180-3	D6925.D	11/27/13	14:57
RS-MW4-112113	SG9180-4	D6926.D	11/27/13	15:30
RS-MW5-112113	SG9180-5	D6927.D	11/27/13	16:03
RS-MW6-112013	SG9180-6	D6928.D	11/27/13	16:36
RS-MW7-112013	SG9180-7	D6929.D	11/27/13	17:09
RS-MW8-112013	SG9180-8	D6930.D	11/27/13	17:42
FD-GW-112113	SG9180-9	D6931.D	11/27/13	18:15
IDW-GW-112113	SG9180-11	D6932.D	11/27/13	18:48





**SDG:** WE40-1

**Lab Name :** Katahdin Analytical Services **Project :** NAVSTA Newport CTO WE40-

Lab ID :WG134365-4Analytical Date: 11/13/13 11:04Lab File ID :C4230.DInstrument ID: GCMS-C

	[	PENTAFLUOROBENZENE		1.4 DIELLIOD	ODENIZENIE	CHLOROBENZENE-D5		
		PENTAFLUUI	KUDENZENE	1,4-DIFLUOROBENZENE		CHLOROBE	ENZENE-D3	
		Area #	RT #	Area #	RT #	Area #	RT #	
	Std.	839803	8.18	1543992	8.84	1449989	12.34	
	Upper Limit	1679606	8.68	3087984	9.34	2899978	12.84	
	Lower Limit	419901.5	7.68	771996	8.34	724994.5	11.84	
Client Sample ID	Lab Sample ID							
Continuing Calibrati	WG134916-4	730513	8.18	1261910	8.84	1230733	12.34	
Laboratory Control S	WG134916-1	771021	8.18	1330784	8.84	1302536	12.34	
Method Blank Sample	WG134916-2	689584	8.18	1233132	8.84	1220551	12.34	
Methanol Blank	WG134916-5	729180	8.18	1332003	8.84	1296910	12.34	
TB-SO-110813	SG9044-10DL	747375	8.18	1342918	8.84	1338990	12.34	
Continuing Calibrati	WG134993-4	884913	8.18	1515094	8.84	1477294	12.34	
Laboratory Control S	WG134993-1	861671	8.18	1510166	8.84	1472327	12.33	
Method Blank Sample	WG134993-2	814906	8.18	1413621	8.84	1390350	12.34	
Methanol Blank	WG134993-5	851915	8.18	1491466	8.84	1482601	12.34	
RS-SB1-111413	SG9044-1DL	865586	8.17	1489725	8.84	1517297	12.34	
RS-SB2-111513	SG9044-2DL	838275	8.18	1508253	8.84	1509437	12.34	
RS-SB3-111513	SG9044-3DL	859470	8.18	1499937	8.84	1527111	12.34	
RS-SB4-111813	SG9044-4DL	874081	8.17	1539138	8.84	1528431	12.33	
RS-SB5-111813	SG9044-5DL	892368	8.17	1544526	8.84	1580345	12.34	
RS-SB6-111513	SG9044-6DL	911262	8.17	1590486	8.84	1632383	12.33	
RS-SB7-111413	SG9044-7DL	901833	8.17	1577375	8.84	1612251	12.33	
RS-SB8-111413	SG9044-8DL	937173	8.18	1584267	8.84	1621846	12.34	
FD-SO-111813	SG9044-9DL	929840	8.18	1609835	8.84	1622857	12.34	

Area Upper Limit = +100% of internal standard area Area Lower Limit = - 50% of internal standard area RT Upper Limit = +0.50 minutes of internal standard RT RT Lower Limit = -0.50 minutes of internal standard RT

<sup>#</sup> Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.





**Lab Name :** Katahdin Analytical Services **Project :** NAVSTA Newport CTO WE40-

**Lab ID :**WG134365-4 **Lab File ID :**C4230.D

SDG: WE40-1 Analytical Date: 11/13/13 11:04 Instrument ID: GCMS-C

	1		
		1,4-DICHLORO	BENZENE-D4
		Area #	RT #
	Std.	796751	15.69
	Upper Limit	1593502	16.19
	Lower Limit	398375.5	15.19
Client Sample ID	Lab Sample ID		
Continuing Calibrati	WG134916-4	719153	15.69
Laboratory Control S	WG134916-1	749009	15.69
Method Blank Sample	WG134916-2	665280	15.69
Methanol Blank	WG134916-5	705876	15.69
TB-SO-110813	SG9044-10DL	721442	15.69
Continuing Calibrati	WG134993-4	865137	15.69
Laboratory Control S	WG134993-1	840191	15.69
Method Blank Sample	WG134993-2	783152	15.69
Methanol Blank	WG134993-5	819455	15.69
RS-SB1-111413	SG9044-1DL	839709	15.68
RS-SB2-111513	SG9044-2DL	839833	15.69
RS-SB3-111513	SG9044-3DL	859980	15.69
RS-SB4-111813	SG9044-4DL	854196	15.69
RS-SB5-111813	SG9044-5DL	879971	15.69
RS-SB6-111513	SG9044-6DL	903301	15.69
RS-SB7-111413	SG9044-7DL	903100	15.69
RS-SB8-111413	SG9044-8DL	925615	15.69
FD-SO-111813	SG9044-9DL	917317	15.69

Area Upper Limit = +100% of internal standard area Area Lower Limit = - 50% of internal standard area RT Upper Limit = +0.50 minutes of internal standard RT RT Lower Limit = -0.50 minutes of internal standard RT

<sup>#</sup> Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.





**SDG:** WE40-1

**Lab Name**: Katahdin Analytical Services **Project**: NAVSTA Newport CTO WE40-

Lab ID :WG134694-4 Analytical Date: 11/19/13 11:13
Lab File ID :D6752.D Instrument ID: GCMS-D

		PENTAFLUOROBENZENE		1,4-DIFLUOR	1,4-DIFLUOROBENZENE		ENZENE-D5
		Area #	RT #	Area #	Area # RT #		RT #
	Std.	789118	8.05	1188806	8.71	Area # 1078530	12.20
			8.55		9.21		12.70
	Upper Limit	1578236		2377612		2157060	
	Lower Limit	394559	7.55	594403	8.21	539265	11.70
Client Sample ID	Lab Sample ID						
Continuing Calibrati	WG135258-4	765055	8.05	1213568	8.72	1147659	12.20
Laboratory Control S	WG135258-1	782118	8.05	1222853	8.71	1175967	12.20
Method Blank Sample	WG135258-2	667183	8.05	1103862	8.71	1026047	12.20
TB-GW-110813	SG9180-10	649087	8.05	1085675	8.71	1035911	12.20
RS-MW1-112013	SG9180-1	692313	8.06	1175218	8.71	1096988	12.20
RS-MW2-112013	SG9180-2	661918	8.05	1106903	8.72	1037018	12.21
RS-MW3-112013	SG9180-3	672288	8.06	1107994	8.71	1052012	12.20
RS-MW4-112113	SG9180-4	652319	8.05	1092293	8.71	1025210	12.20
RS-MW5-112113	SG9180-5	618614	8.05	1026905	8.71	977573	12.21
RS-MW6-112013	SG9180-6	639705	8.05	1076280	8.72	1012001	12.20
RS-MW7-112013	SG9180-7	599881	8.06	1018478	8.71	958556	12.20
RS-MW8-112013	SG9180-8	612726	8.05	1045793	8.71	992590	12.20
FD-GW-112113	SG9180-9	606283	8.05	1041589	8.71	966977	12.21
IDW-GW-112113	SG9180-11	599423	8.06	1029658	8.72	986748	12.21

Area Upper Limit = +100% of internal standard area Area Lower Limit = -50% of internal standard area RT Upper Limit = +0.50 minutes of internal standard RT RT Lower Limit = -0.50 minutes of internal standard RT

<sup>#</sup> Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.





Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-

**SDG:** WE40-1 **Lab ID**: WG134694-4 **Analytical Date:** 11/19/13 11:13 Lab File ID: D6752.D **Instrument ID: GCMS-D** 

		1,4-DICHLORO	BENZENE-D4
		Area #	RT #
	Std.	676282	15.52
	Upper Limit	1352564	16.02
	Lower Limit	338141	15.02
Client Sample ID	Lab Sample ID		
Continuing Calibrati	WG135258-4	734010	15.52
Laboratory Control S	WG135258-1	742549	15.52
Method Blank Sample	WG135258-2	613603	15.52
TB-GW-110813	SG9180-10	615321	15.52
RS-MW1-112013	SG9180-1	672200	15.52
RS-MW2-112013	SG9180-2	617291	15.52
RS-MW3-112013	SG9180-3	632451	15.52
RS-MW4-112113	SG9180-4	620023	15.52
RS-MW5-112113	SG9180-5	590821	15.52
RS-MW6-112013	SG9180-6	614661	15.52
RS-MW7-112013	SG9180-7	579496	15.52
RS-MW8-112013	SG9180-8	594739	15.52
FD-GW-112113	SG9180-9	586115	15.52
IDW-GW-112113	SG9180-11	617177	15.52

Area Upper Limit = +100% of internal standard area Area Lower Limit = - 50% of internal standard area RT Upper Limit = +0.50 minutes of internal standard RT RT Lower Limit = - 0.50 minutes of internal standard RT

<sup>#</sup> Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.

## **Sample Data Section**

## KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

- U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.
  - Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
- Compound recovery outside of quality control limits.
- D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
- E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
- J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

- J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.
- B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
- C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).
- L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.
- M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.
- N Presumptive evidence of a compound based on a mass spectral library search.
- A Indicates that a tentatively identified compound is a suspected aldol-condensation product.
- P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

# Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.





## **Report of Analytical Results**

Client: AECOM Environment

**Lab ID:** SG9044-1DL **Client ID:** RS-SB1-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4450.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 86.

**Report Date:** 02-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	130	ug/Kgdrywt	1	5	260	49.	130
Ethylbenzene	U	130	ug/Kgdrywt	1	5	260	34.	130
Methyl tert-butyl Ether	U	130	ug/Kgdrywt	t 1	5	260	58.	130
Toluene	U	130	ug/Kgdrywt	1	5	260	74.	130
Xylenes (Total)	U	400	ug/Kgdrywt	t 1	15	800	69.	400
m+p-Xylenes	U	260	ug/Kgdrywt	1	10	530	90.	260
o-Xylene	U	130	ug/Kgdrywt	1	5	260	69.	130
p-Bromofluorobenzene		88.8	%					
Toluene-D8		93.1	%					
1,2-Dichloroethane-D4		87.0	%					
Dibromofluoromethane		80.8	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4450.D

Report Date: 02-Dec-2013 12:10

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4450.D

Lab Smp Id: SG9044-1DL Client Smp ID: RS-SB1-111413

Inj Date : 23-NOV-2013 11:55

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-1DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 7

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

#### Concentration Formula:

Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description
 DF	1.000	Dilution Factor
M		% moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.580	Weight of Sample (g)
Vt		Volume of MeOH (mL)
Va	800.000	
Cpnd Variable		Local Compound Variable

			CONCENTRATIONS				
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT RE	L RT RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
=======================================	====	====			======	======	========
\$ 37 Dibromofluoromethane	113	7.545	7.549 (0.9	23) 266605	40.3832	2130	
* 42 Pentafluorobenzene	168	8.174	8.178 (1.0	00) 865586	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.231	8.228 (1.0	07) 311103	43.4858	2290	
* 49 1,4-Difluorobenzene	114	8.839	8.836 (1.0	00) 1489725	50.0000		
\$ 55 Toluene-D8	98	10.448	10.452 (1.1	82) 1012780	46.5322	2450	
* 66 Chlorobenzene-D5	117	12.336	12.340 (1.0	00) 1517297	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.994	13.992 (1.5	83) 451158	44.3827	2340	
* 91 1.4-Dichlorobenzene-D4	152	15.682	15.686 (1.0	00) 839709	50.0000		

Instrument: gcms-c.i





**Client:** AECOM Environment

**Lab ID:** SG9044-2DL **Client ID:** RS-SB2-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4451.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

Extraction Method: SW846 5035 Lab Prep Batch: WG134993 **Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 84.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	140	ug/Kgdrywt	1	5	290	53.	140
Ethylbenzene	U	140	ug/Kgdrywt	: 1	5	290	38.	140
Methyl tert-butyl Ether	U	140	ug/Kgdrywt	: 1	5	290	64.	140
Toluene	U	140	ug/Kgdrywt	1	5	290	81.	140
Xylenes (Total)	U	440	ug/Kgdrywt	: 1	15	870	75.	440
m+p-Xylenes	U	290	ug/Kgdrywt	1	10	580	99.	290
o-Xylene	U	140	ug/Kgdrywt	: 1	5	290	75.	140
p-Bromofluorobenzene		88.9	%					
Toluene-D8		92.9	%					
1,2-Dichloroethane-D4		88.6	%					
Dibromofluoromethane		86.2	%					

Report Date: 02-Dec-2013 12:10

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4451.D

Lab Smp Id: SG9044-2DL Client Smp ID: RS-SB2-111513

Inj Date : 23-NOV-2013 12:29

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-2DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 8

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

Name	Value	Description
	1 000	Dilution Hoston
DF	1.000	
M		% moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.160	Weight of Sample (g)
Vt	5.000	Volume of MeOH (mL)
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
=======================================	====	====		=======	======	======	========
\$ 37 Dibromofluoromethane	113	7.549	7.549 (0.923)	275618	43.1085	2500	
* 42 Pentafluorobenzene	168	8.178	8.178 (1.000)	838275	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.228	8.228 (1.006)	307067	44.3201	2570	
* 49 1,4-Difluorobenzene	114	8.836	8.836 (1.000)	1508253	50.0000		
\$ 55 Toluene-D8	98	10.452	10.452 (1.183)	1023474	46.4459	2700	
* 66 Chlorobenzene-D5	117	12.339	12.340 (1.000)	1509437	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.991	13.992 (1.583)	457367	44.4408	2580	
* 91 1,4-Dichlorobenzene-D4	152	15.685	15.686 (1.000)	839833	50.0000		





**Client:** AECOM Environment

**Lab ID:** SG9044-3DL **Client ID:** RS-SB3-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4452.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 23 NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	130	ug/Kgdrywt	t 1	5	260	48.	130
Ethylbenzene	U	130	ug/Kgdrywt	t 1	5	260	34.	130
Methyl tert-butyl Ether	U	130	ug/Kgdrywt	t 1	5	260	57.	130
Toluene	U	130	ug/Kgdrywt	t 1	5	260	73.	130
Xylenes (Total)	U	390	ug/Kgdrywt	t 1	15	780	68.	390
m+p-Xylenes	U	260	ug/Kgdrywt	t 1	10	520	88.	260
o-Xylene	U	130	ug/Kgdrywt	t 1	5	260	68.	130
p-Bromofluorobenzene		88.8	%					
Toluene-D8		92.0	%					
1,2-Dichloroethane-D4		84.8	%					
Dibromofluoromethane		82.6	%					

Report Date: 02-Dec-2013 12:10

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4452.D

Lab Smp Id: SG9044-3DL Client Smp ID: RS-SB3-111513

Inj Date : 23-NOV-2013 13:02

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-3DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 9

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description
DF M		Dilution Factor % moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.010	Weight of Sample (g)
Vt	5.000	Volume of MeOH (mL)
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
=======================================	====	====		======	======	======	========
\$ 37 Dibromofluoromethane	113	7.548	7.549 (0.923)	270754	41.3035	2140	
* 42 Pentafluorobenzene	168	8.178	8.178 (1.000)	859470	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.235	8.228 (1.007)	301150	42.3942	2200	
* 49 1,4-Difluorobenzene	114	8.835	8.836 (1.000)	1499937	50.0000		
\$ 55 Toluene-D8	98	10.451	10.452 (1.183)	1008412	46.0161	2380	
* 66 Chlorobenzene-D5	117	12.339	12.340 (1.000)	1527111	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.991	13.992 (1.583)	454498	44.4069	2300	
88 1,2,4-Trimethylbenzene	105	15.063	15.064 (0.960)	83734	2.73381	142(a)	
* 91 1,4-Dichlorobenzene-D4	152	15.685	15.686 (1.000)	859980	50.0000		
100 1,2,3-Trimethylbenzene	105	15.750	15.750 (1.004)	54956	1.77466	91.9(a)	
101 Naphthalene	128	19.539	19.533 (1.246)	41353	2.15093	111(a)	
103 Methyl Acetate	43	5.174	5.133 (0.633)	90068	12.9208	669	
M 153 Total Alkylbenzenes	100			83734	2.73381	142(a)	

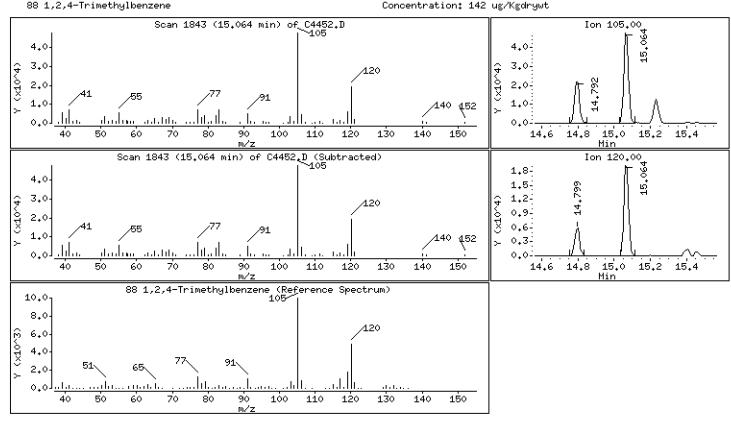
## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Date : 23-NOV-2013 13:02 Client ID: RS-SB3-111513 Sample Info: SG9044-3DL

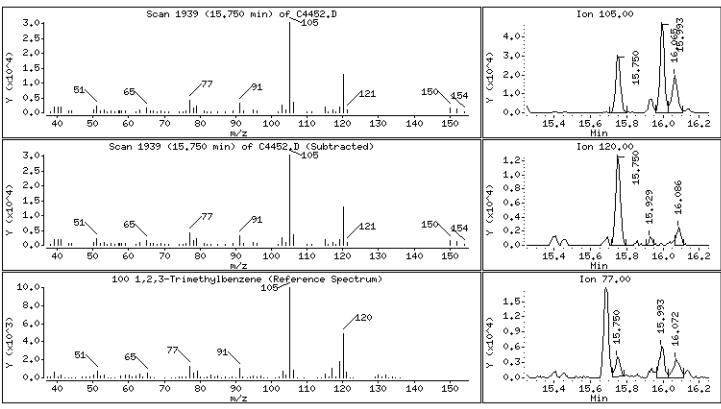
Instrument: gcms-c.i

88 1,2,4-Trimethylbenzene Concentration: 142 ug/Kgdrywt



100 1,2,3-Trimethylbenzene

Concentration: 91.9 ug/Kgdrywt



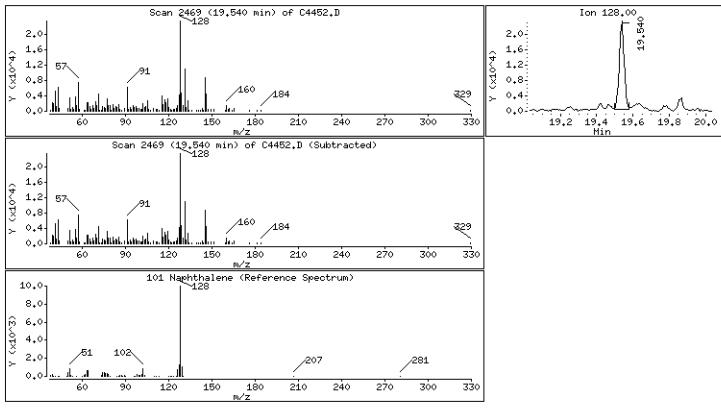
Date : 23-NOV-2013 13:02 Client ID: RS-SB3-111513

Instrument: gcms-c₊i

Sample Info: SG9044-3DL

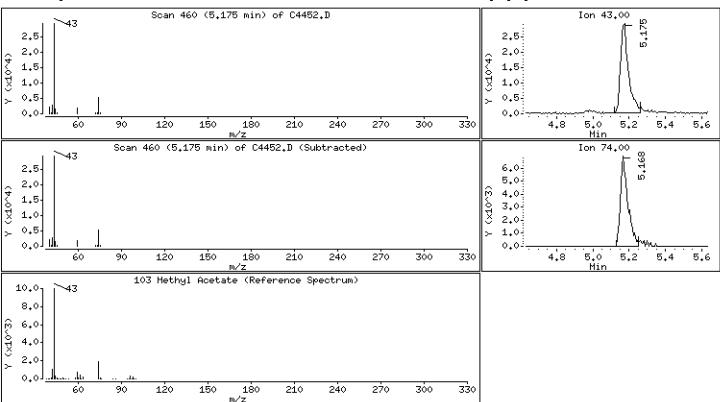
### 101 Naphthalene

Concentration: 111 ug/Kgdrywt



103 Methyl Acetate

Concentration: 669 ug/Kgdrywt







Client: AECOM Environment

**Lab ID:** SG9044-4DL **Client ID:** RS-SB4-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4453.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

Extraction Method: SW846 5035 Lab Prep Batch: WG134993 **Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	130	ug/Kgdrywt	1	5	260	47.	130
Ethylbenzene	U	130	ug/Kgdrywt	: 1	5	260	33.	130
Methyl tert-butyl Ether	U	130	ug/Kgdrywt	: 1	5	260	56.	130
Toluene	U	130	ug/Kgdrywt	1	5	260	71.	130
Xylenes (Total)	U	380	ug/Kgdrywt	: 1	15	760	66.	380
m+p-Xylenes	U	260	ug/Kgdrywt	1	10	510	87.	260
o-Xylene	U	130	ug/Kgdrywt	: 1	5	260	66.	130
p-Bromofluorobenzene		86.8	%					
Toluene-D8		92.2	%					
1,2-Dichloroethane-D4		84.9	%					
Dibromofluoromethane		81.9	%					

Report Date: 02-Dec-2013 12:10

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4453.D

Lab Smp Id: SG9044-4DLClient Smp ID: RS-SB4-111813

Inj Date : 23-NOV-2013 13:35

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-4DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 10

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

Name	Value	Description
DF M	1.000	Dilution Factor % moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.750	Weight of Sample (g)
Vt		Volume of MeOH (mL)
Va Cpnd Variable	800.000	MeOH Aliquot (uL) Local Compound Variable
chira variable		HOCAT COMPOUND VALIABLE

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
=======================================	====	====		=======	======	======	========
\$ 37 Dibromofluoromethane	113	7.551	7.549 (0.924)	273045	40.9567	2100	
* 42 Pentafluorobenzene	168	8.173	8.178 (1.000)	874081	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.230	8.228 (1.007)	306571	42.4359	2180	
* 49 1,4-Difluorobenzene	114	8.838	8.836 (1.000)	1539138	50.0000		
\$ 55 Toluene-D8	98	10.454	10.452 (1.183)	1036986	46.1148	2370	
* 66 Chlorobenzene-D5	117	12.334	12.340 (1.000)	1528431	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.993	13.992 (1.583)	456109	43.4293	2230	
* 91 1,4-Dichlorobenzene-D4	152	15.688	15.686 (1.000)	854196	50.0000		

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Client: AECOM Environment

**Lab ID:** SG9044-5DL **Client ID:** RS-SB5-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4454.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	120	ug/Kgdrywt	1	5	250	46.	120
Ethylbenzene	U	120	ug/Kgdrywt	: 1	5	250	32.	120
Methyl tert-butyl Ether	U	120	ug/Kgdrywt	: 1	5	250	55.	120
Toluene	U	120	ug/Kgdrywt	1	5	250	70.	120
Xylenes (Total)	U	380	ug/Kgdrywt	: 1	15	750	65.	380
m+p-Xylenes	U	250	ug/Kgdrywt	1	10	500	85.	250
o-Xylene	U	120	ug/Kgdrywt	: 1	5	250	65.	120
p-Bromofluorobenzene		101.	%					
Toluene-D8		92.9	%					
1,2-Dichloroethane-D4		84.8	%					
Dibromofluoromethane		84.6	%					

Report Date: 02-Dec-2013 12:10

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4454.D

Lab Smp Id: SG9044-5DLClient Smp ID: RS-SB5-111813

Inj Date : 23-NOV-2013 14:09

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-5DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 11

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

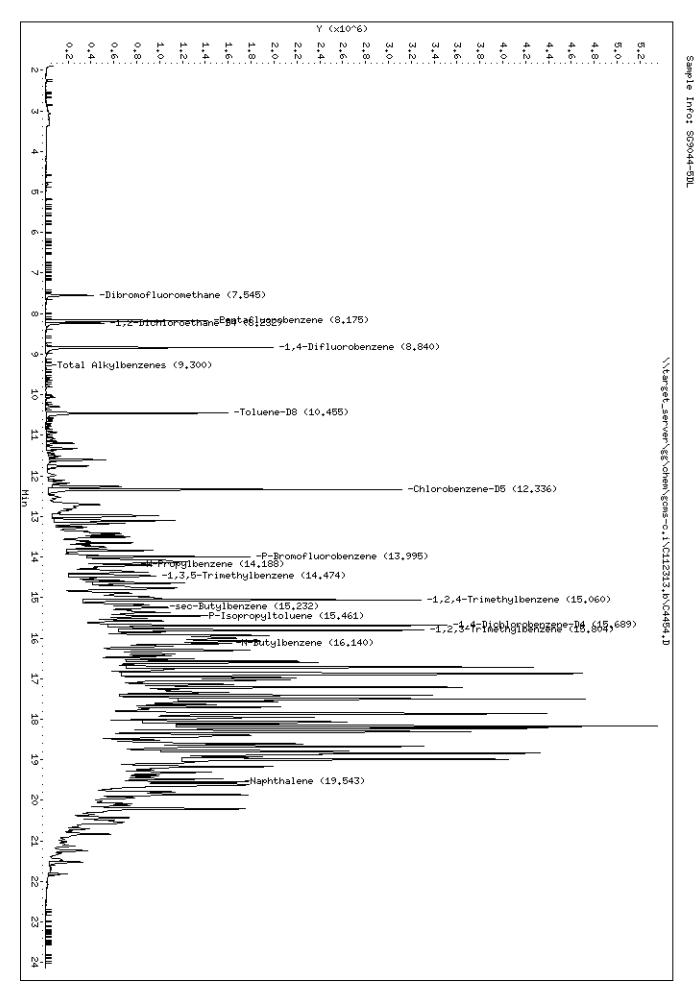
## Concentration Formula:

Name	Value	Description					
DF	1 000	Dilution Factor					
Dr M		% moisture					
Vo	40000.000	Prep Volume (uL)					
Ws	7.000	Weight of Sample (g)					
Vt		Volume of MeOH (mL)					
Va	800.000	MeOH Aliquot (uL)					
Cpnd Variable		Local Compound Variable					

						CONCENTRA	ATIONS	
	QUANT SIG					ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT F	REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
	====	====		======	======	======	======	========
\$ 37 Dibromofluoromethane	113	7.545	7.549 (0.	.923)	287874	42.2961	2100	
* 42 Pentafluorobenzene	168	8.174	8.178 (1.	.000)	892368	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.231	8.228 (1.	.007)	312606	42.3845	2100	
* 49 1,4-Difluorobenzene	114	8.839	8.836 (1.	.000)	1544526	50.0000		
\$ 55 Toluene-D8	98	10.455	10.452 (1.	.183)	1047979	46.4411	2300	
* 66 Chlorobenzene-D5	117	12.335	12.340 (1.	.000)	1580345	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.994	13.992 (1.	.583)	533195	50.5921	2510	
80 N-Propylbenzene	91	14.187	14.185 (0.	.904)	55253	1.26122	62.6(a)	
82 1,3,5-Trimethylbenzene	105	14.480	14.478 (0.	.923)	92642	2.92176	145(a)	
88 1,2,4-Trimethylbenzene	105	15.067	15.064 (0.	.960)	578775	18.4670	916	
89 P-Isopropyltoluene	119	15.460	15.457 (0.	.985)	400570	12.9774	644	
* 91 1,4-Dichlorobenzene-D4	152	15.689	15.686 (1.	.000)	879971	50.0000		
93 N-Butylbenzene	91	16.139	16.137 (1.	.029)	381229	10.5633	524	
94 sec-Butylbenzene	105	15.231	15.229 (0.	.971)	232347	6.01430	298	
100 1,2,3-Trimethylbenzene	105	15.753	15.750 (1.	.004)	342060	10.7950	535	
101 Naphthalene	128	19.543	19.533 (1.	.246)	263163	13.3771	663	
M 153 Total Alkylbenzenes	100				1740816	52.2050	2590	

Data File:  $\t server \g \chem \gcms-c.i\C112313.b\C4454.D$  Report Date: 02-Dec-2013 12:10

QC Flag Legend



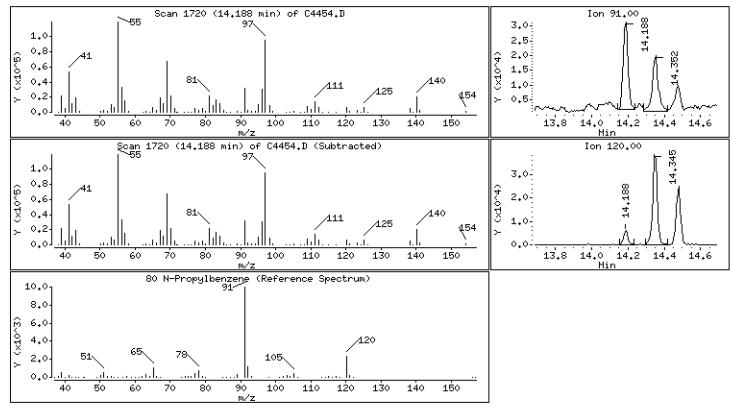
Date : 23-NOV-2013 14:09 Client ID: RS-SB5-111813

Instrument: gcms-c₊i

Sample Info: SG9044-5DL

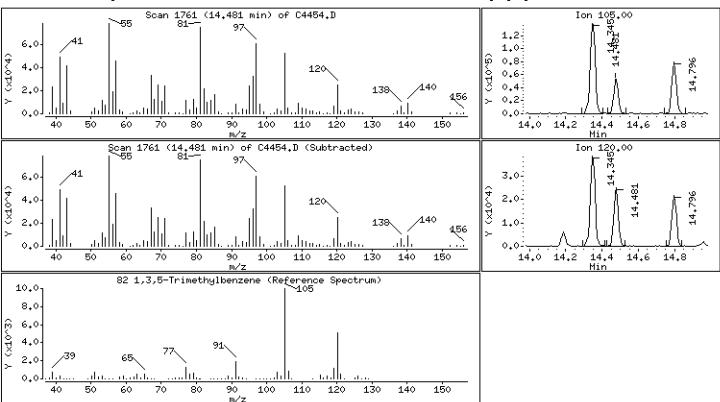
### 80 N-Propylbenzene

Concentration: 62.6 ug/Kgdrywt



82 1,3,5-Trimethylbenzene

Concentration: 145 ug/Kgdrywt



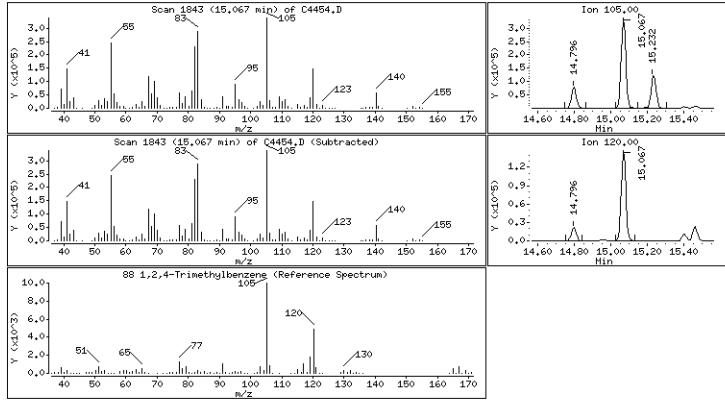
Date : 23-NOV-2013 14:09 Client ID: RS-SB5-111813

ient ID: RS-SB5-111813 Instrument: gcms-c.i

Sample Info: SG9044-5DL

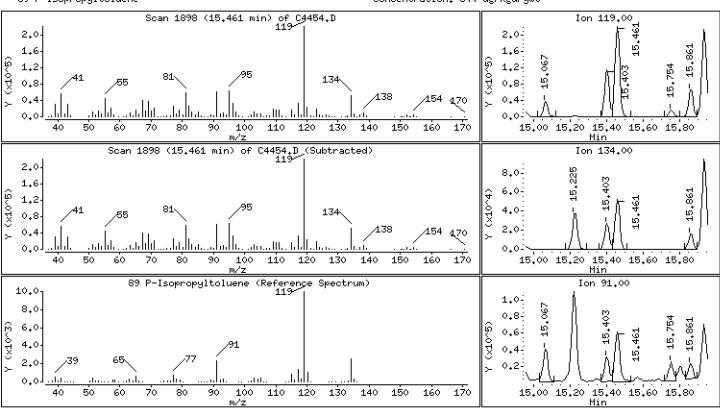
88 1,2,4-Trimethylbenzene

Concentration: 916 ug/Kgdrywt



89 P-Isopropyltoluene

Concentration: 644 ug/Kgdrywt



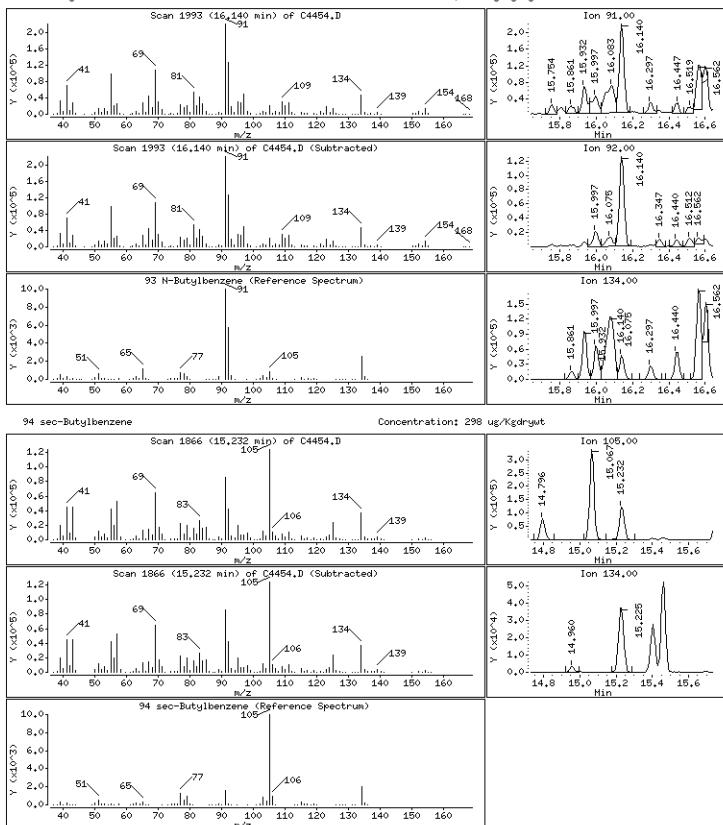
Date : 23-NOV-2013 14:09 Client ID: RS-SB5-111813

ient ID: RS-SB5-111813 Instrument: gcms-c.i

Sample Info: SG9044-5DL

### 93 N-Butylbenzene

#### Concentration: 524 ug/Kgdrywt



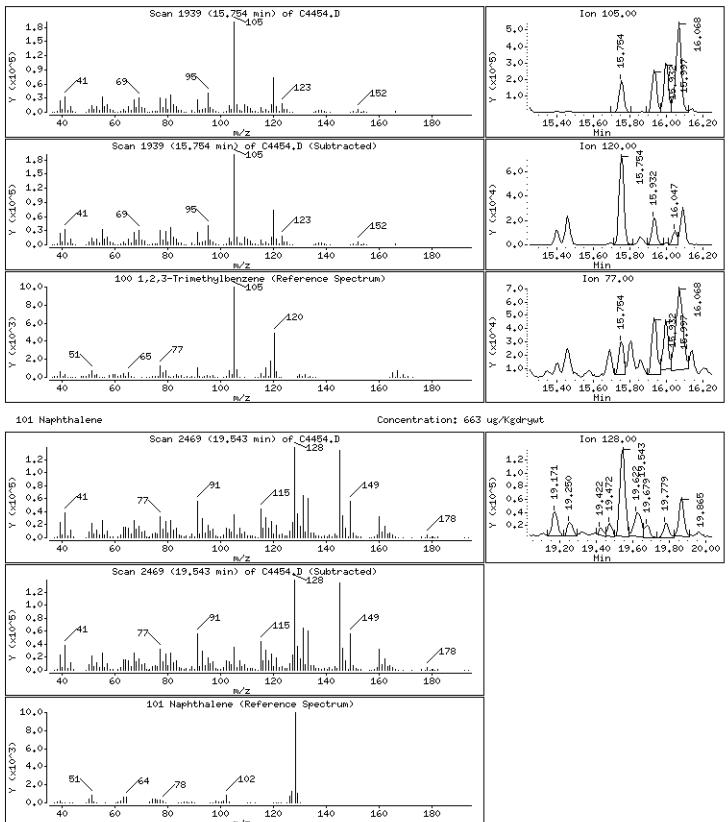
Date : 23-NOV-2013 14:09 Client ID: RS-SB5-111813

Instrument: gcms-c.i

Sample Info: SG9044-5DL

100 1,2,3-Trimethylbenzene

Concentration: 535 ug/Kgdrywt







**Client:** AECOM Environment

**Lab ID:** SG9044-6DL **Client ID:** RS-SB6-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4455.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	140	ug/Kgdryw	t 1	5	270	50.	140
Ethylbenzene	U	140	ug/Kgdryw	t 1	5	270	35.	140
Methyl tert-butyl Ether	U	140	ug/Kgdryw	t 1	5	270	59.	140
Toluene	U	140	ug/Kgdryw	t 1	5	270	76.	140
Xylenes (Total)	U	400	ug/Kgdryw	t 1	15	810	70.	400
m+p-Xylenes	U	270	ug/Kgdryw	t 1	10	540	92.	270
o-Xylene	U	140	ug/Kgdryw	t 1	5	270	70.	140
p-Bromofluorobenzene		89.6	%					
Toluene-D8		90.8	%					
1,2-Dichloroethane-D4		82.8	%					
Dibromofluoromethane		82.8	%					

Report Date: 02-Dec-2013 12:10

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4455.D

Lab Smp Id: SG9044-6DL Client Smp ID: RS-SB6-111513

Inj Date : 23-NOV-2013 14:42

Operator : REC Inst ID: gcms-c.i

Smp Info : SG9044-6DL Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 12

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

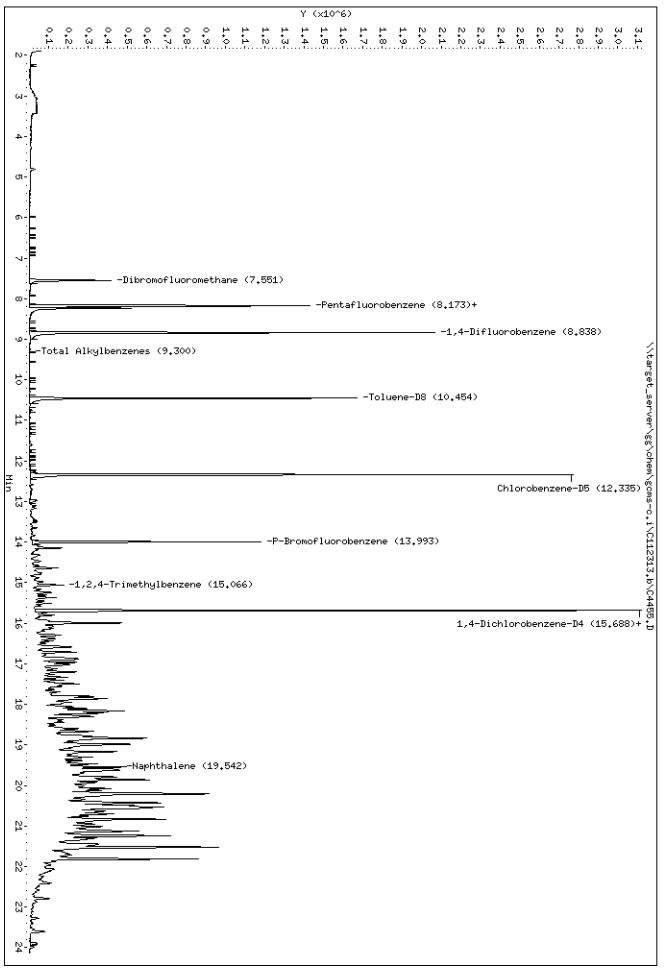
Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description
DF M		Dilution Factor % moisture
Vo	40000.000	Prep Volume (uL)
Ws Vt	5.820 5.000	Volume of MeOH (mL)
Va Cpnd Variable	800.000	MeOH Aliquot (uL) Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
	====	====			======	======	========
\$ 37 Dibromofluoromethane	113	7.551	7.549 (0.924)	287591	41.3785	2220	
* 42 Pentafluorobenzene	168	8.173	8.178 (1.000)	911262	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.230	8.228 (1.007)	311675	41.3821	2220	
* 49 1,4-Difluorobenzene	114	8.838	8.836 (1.000)	1590486	50.0000		
\$ 55 Toluene-D8	98	10.454	10.452 (1.183)	1054862	45.3953	2440	
* 66 Chlorobenzene-D5	117	12.334	12.340 (1.000)	1632383	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.993	13.992 (1.583)	486237	44.8033	2410	
88 1,2,4-Trimethylbenzene	105	15.065	15.064 (0.960)	51744	1.60836	86.5(a)	
* 91 1,4-Dichlorobenzene-D4	152	15.687	15.686 (1.000)	903301	50.0000		
100 1,2,3-Trimethylbenzene	105	15.752	15.750 (1.004)	34244	1.05279	56.6(a)	
101 Naphthalene	128	19.541	19.533 (1.246)	65316	3.23440	174(a)	
M 153 Total Alkylbenzenes	100			51744	1.60836	86.5(a)	

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

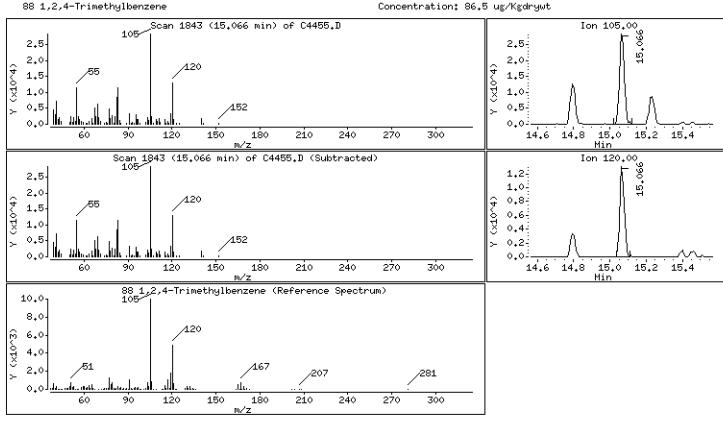


Date : 23-NOV-2013 14:42 Client ID: RS-SB6-111513

Instrument: gcms-c.i

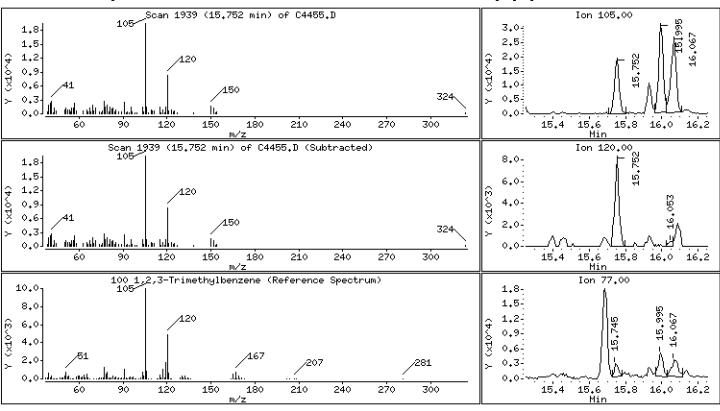
Sample Info: SG9044-6DL

88 1,2,4-Trimethylbenzene Concentration: 86.5 ug/Kgdrywt



100 1,2,3-Trimethylbenzene

Concentration: 56.6 ug/Kgdrywt



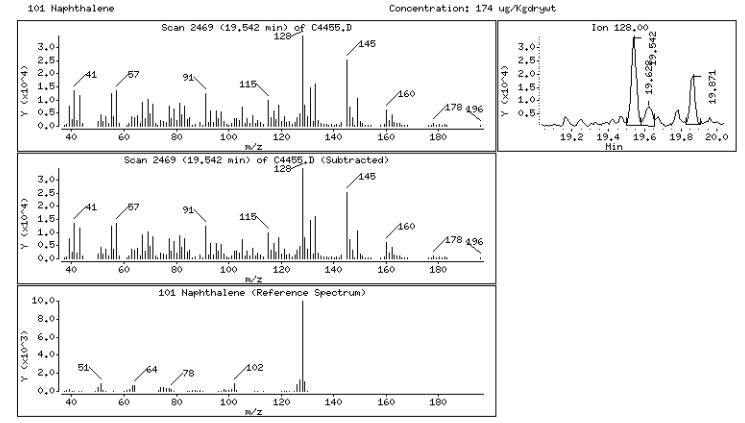
Date : 23-NOV-2013 14:42 Client ID: RS-SB6-111513

Instrument: gcms-c₊i

Sample Info: SG9044-6DL

### 101 Naphthalene

### Concentration: 174 ug/Kgdrywt







Client: AECOM Environment Lab ID: SG9044-7DL

Client ID: RS-SB7-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4456.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 87.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	120	ug/Kgdrywt	1	5	240	44.	120
Ethylbenzene	U	120	ug/Kgdrywt	: 1	5	240	31.	120
Methyl tert-butyl Ether	U	120	ug/Kgdrywt	: 1	5	240	53.	120
Toluene	U	120	ug/Kgdrywt	1	5	240	67.	120
Xylenes (Total)	U	360	ug/Kgdrywt	: 1	15	720	62.	360
m+p-Xylenes	U	240	ug/Kgdrywt	1	10	480	82.	240
o-Xylene	U	120	ug/Kgdrywt	: 1	5	240	62.	120
p-Bromofluorobenzene		88.8	%					
Toluene-D8		91.3	%					
1,2-Dichloroethane-D4		81.8	%					
Dibromofluoromethane		83.8	%					

Report Date: 02-Dec-2013 12:11

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4456.D

Lab Smp Id: SG9044-7DL Client Smp ID: RS-SB7-111413

Inj Date : 23-NOV-2013 15:16

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-7DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 13

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

Name	Value	Description
DF	1.000	Dilution Factor
M	12.708	% moisture
Vo	40000.000	Prep Volume (uL)
Ws	7.010	Weight of Sample (g)
Vt	5.000	Volume of MeOH (mL)
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	(ug/Kgdrywt)	REVIEW COD
	====	====			======	======	=======
\$ 37 Dibromofluoromethane	113	7.551	7.549 (0.924)	288057	41.8788	2020	
* 42 Pentafluorobenzene	168	8.173	8.178 (1.000)	901833	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.230	8.228 (1.007)	304854	40.8997	1970	
* 49 1,4-Difluorobenzene	114	8.838	8.836 (1.000)	1577375	50.0000		
\$ 55 Toluene-D8	98	10.454	10.452 (1.183)	1051689	45.6349	2200	
* 66 Chlorobenzene-D5	117	12.334	12.340 (1.000)	1612251	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.993	13.992 (1.583)	477930	44.4039	2140	
* 91 1,4-Dichlorobenzene-D4	152	15.688	15.686 (1.000)	903100	50.0000		

Instrument: gcms-c.i





Client: AECOM Environment

**Lab ID:** SG9044-8DL **Client ID:** RS-SB8-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4457.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 23 NOV 13

Extract Date: 23-NOV-13 Extracted By: REC

Extraction Method: SW846 5035 Lab Prep Batch: WG134993 **Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 78.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	160	ug/Kgdrywt	t 1	5	320	58.	160
Ethylbenzene	U	160	ug/Kgdrywt	t 1	5	320	41.	160
Methyl tert-butyl Ether	U	160	ug/Kgdrywt	t 1	5	320	69.	160
Toluene	U	160	ug/Kgdrywt	t 1	5	320	88.	160
Xylenes (Total)	U	470	ug/Kgdrywt	t 1	15	940	82.	470
m+p-Xylenes	U	320	ug/Kgdrywt	t 1	10	630	110	320
o-Xylene	U	160	ug/Kgdrywt	t 1	5	320	82.	160
p-Bromofluorobenzene		88.3	%					
Toluene-D8		92.3	%					
1,2-Dichloroethane-D4		81.6	%					
Dibromofluoromethane		82.2	%					

Report Date: 02-Dec-2013 12:11

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4457.D

Lab Smp Id: SG9044-8DL Client Smp ID: RS-SB8-111413

Inj Date : 23-NOV-2013 15:49

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-8DL
Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 14

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

## Concentration Formula:

Name	Value	Description
DF M	1.000	Dilution Factor % moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.520	Weight of Sample (g)
Vt		Volume of MeOH $(mL)$
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	(ug/Kgdrywt)	REVIEW COD
	====	====			======	======	=======
\$ 37 Dibromofluoromethane	113	7.550	7.549 (0.923)	293704	41.0896	2600	
* 42 Pentafluorobenzene	168	8.179	8.178 (1.000)	937173	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.229	8.228 (1.006)	315905	40.7841	2580	
* 49 1,4-Difluorobenzene	114	8.837	8.836 (1.000)	1584267	50.0000		
\$ 55 Toluene-D8	98	10.453	10.452 (1.183)	1067885	46.1361	2920	
* 66 Chlorobenzene-D5	117	12.340	12.340 (1.000)	1621846	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.992	13.992 (1.583)	477240	44.1469	2800	
* 91 1,4-Dichlorobenzene-D4	152	15.687	15.686 (1.000)	925615	50.0000		





**Client:** AECOM Environment

**Lab ID:** SG9044-9DL **Client ID:** FD-SO-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4458.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 23-NOV-13

Extract Date: 23-NOV-13 Extracted By: REC

Extraction Method: SW846 5035 Lab Prep Batch: WG134993 **Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	130	ug/Kgdrywt	1	5	260	48.	130
Ethylbenzene	U	130	ug/Kgdrywt	1	5	260	34.	130
Methyl tert-butyl Ether	U	130	ug/Kgdrywt	1	5	260	57.	130
Toluene	U	130	ug/Kgdrywt	1	5	260	73.	130
Xylenes (Total)	U	390	ug/Kgdrywt	1	15	780	68.	390
m+p-Xylenes	U	260	ug/Kgdrywt	1	10	520	88.	260
o-Xylene	U	130	ug/Kgdrywt	1	5	260	68.	130
p-Bromofluorobenzene		98.6	%					
Toluene-D8		92.3	%					
1,2-Dichloroethane-D4		81.4	%					
Dibromofluoromethane		82.4	%					

Report Date: 02-Dec-2013 12:11

## Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4458.D

Lab Smp Id: SG9044-9DL Client Smp ID: FD-SO-111813

Inj Date : 23-NOV-2013 16:23

Operator : REC Inst ID: gcms-c.i

Smp Info : SG9044-9DL Misc Info : WG134993, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 15

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

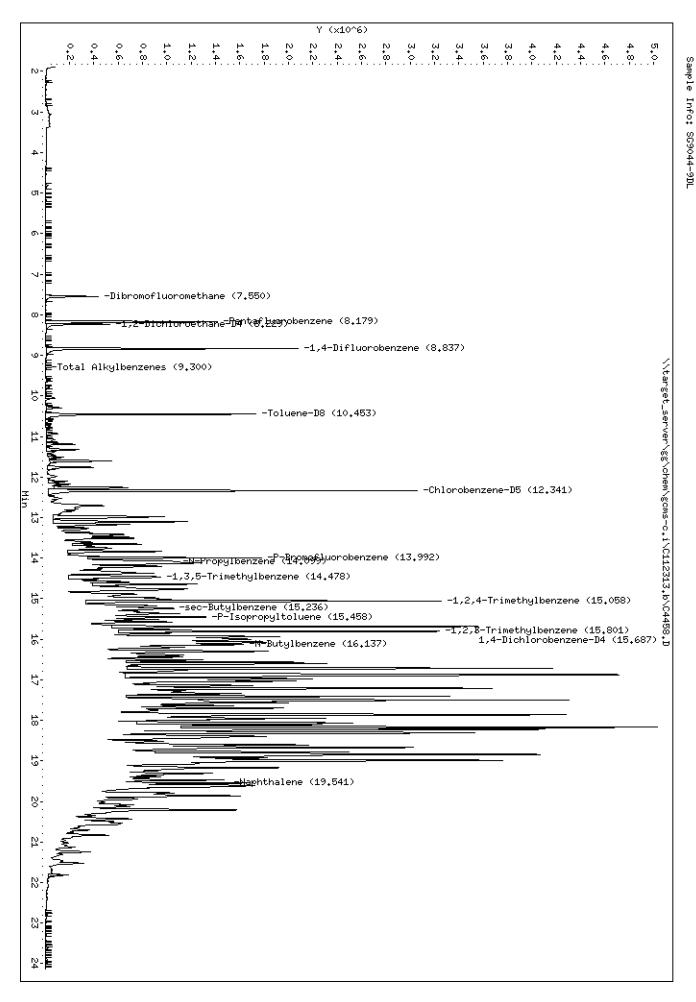
## Concentration Formula:

Name	Value	Description
DD	1 000	Dileties Destas
DF	1.000	
M		% moisture
Vo	40000.000	Prep Volume (uL)
Ws	6.570	Weight of Sample (g)
Vt	5.000	Volume of MeOH (mL)
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENTR	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RI	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
	====	====		= ======	======	======	========
\$ 37 Dibromofluoromethane	113	7.549	7.549 (0.923)	292274	41.2121	2160	
* 42 Pentafluorobenzene	168	8.179	8.178 (1.000)	929840	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.229	8.228 (1.006)	312826	40.7051	2130	
* 49 1,4-Difluorobenzene	114	8.836	8.836 (1.000)	1609835	50.0000		
\$ 55 Toluene-D8	98	10.452	10.452 (1.183)	1085515	46.1529	2420	
* 66 Chlorobenzene-D5	117	12.340	12.340 (1.000)	1622857	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.999	13.992 (1.584)	541822	49.3250	2580	
80 N-Propylbenzene	91	14.185	14.185 (0.904)	52461	1.14874	60.2(a)	
82 1,3,5-Trimethylbenzene	105	14.478	14.478 (0.923)	95162	2.87905	151(a)	
88 1,2,4-Trimethylbenzene	105	15.064	15.064 (0.960)	537495	16.4517	862	
89 P-Isopropyltoluene	119	15.457	15.457 (0.985)	380655	11.8301	620	
* 91 1,4-Dichlorobenzene-D4	152	15.686	15.686 (1.000)	917317	50.0000		
93 N-Butylbenzene	91	16.137	16.137 (1.029)	359031	9.54325	500	
94 sec-Butylbenzene	105	15.236	15.229 (0.971)	218460	5.42461	284	
100 1,2,3-Trimethylbenzene	105	15.751	15.750 (1.004)	322705	9.76956	512	
101 Naphthalene	128	19.540	19.533 (1.246)	246928	12.0409	631	
M 153 Total Alkylbenzenes	100			1643264	47.2774	2480	

Data File:  $\t server \g \chem \gcms-c.i\C112313.b\C4458.D$  Report Date: 02-Dec-2013 12:11

QC Flag Legend



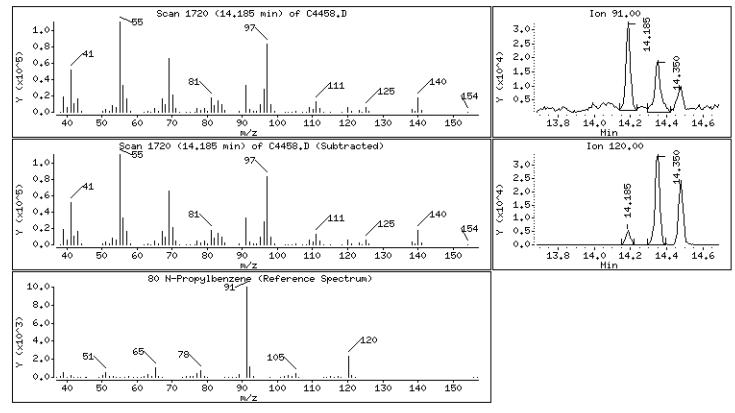
Date : 23-NOV-2013 16:23 Client ID: FD-S0-111813

Sample Info: SG9044-9DL

Client ID: FD-SO-111813 Instrument: gcms-c.i

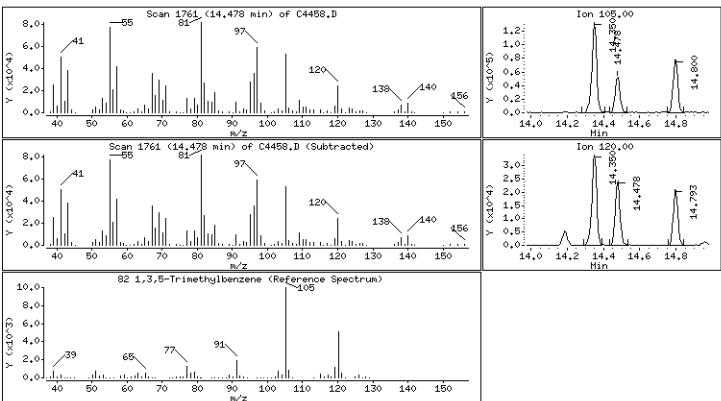
80 N-Propylbenzene

Concentration: 60.2 ug/Kgdrywt



82 1,3,5-Trimethylbenzene

Concentration: 151 ug/Kgdrywt



Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4458.D

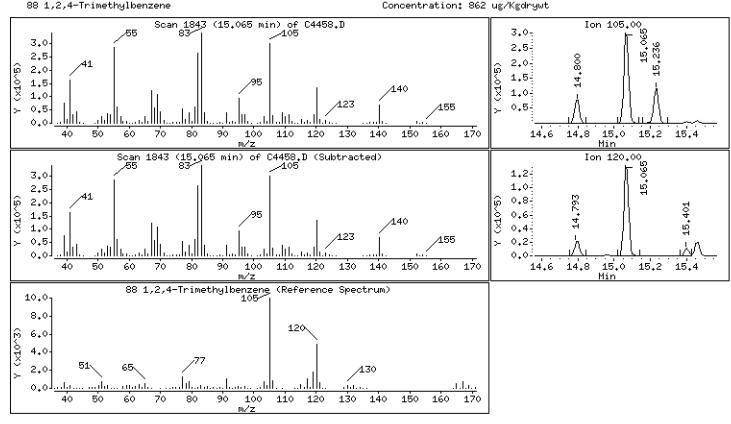
Date : 23-NOV-2013 16:23 Client ID: FD-S0-111813

Instrument: gcms-c.i

Sample Info: SG9044-9DL

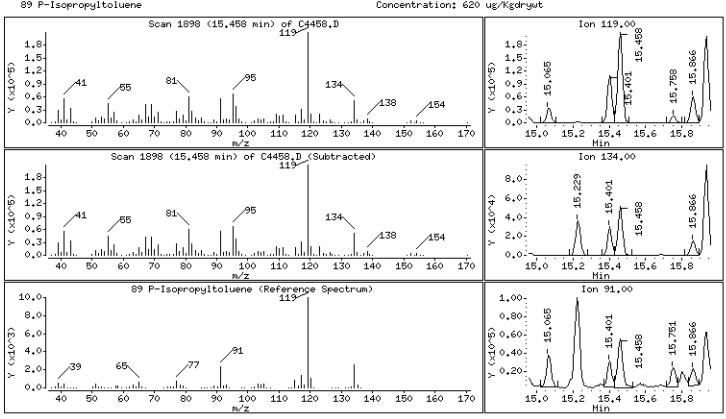
88 1,2,4-Trimethylbenzene

Concentration: 862 ug/Kgdrywt



89 P-Isopropyltoluene

Concentration: 620 ug/Kgdrywt



Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4458.D

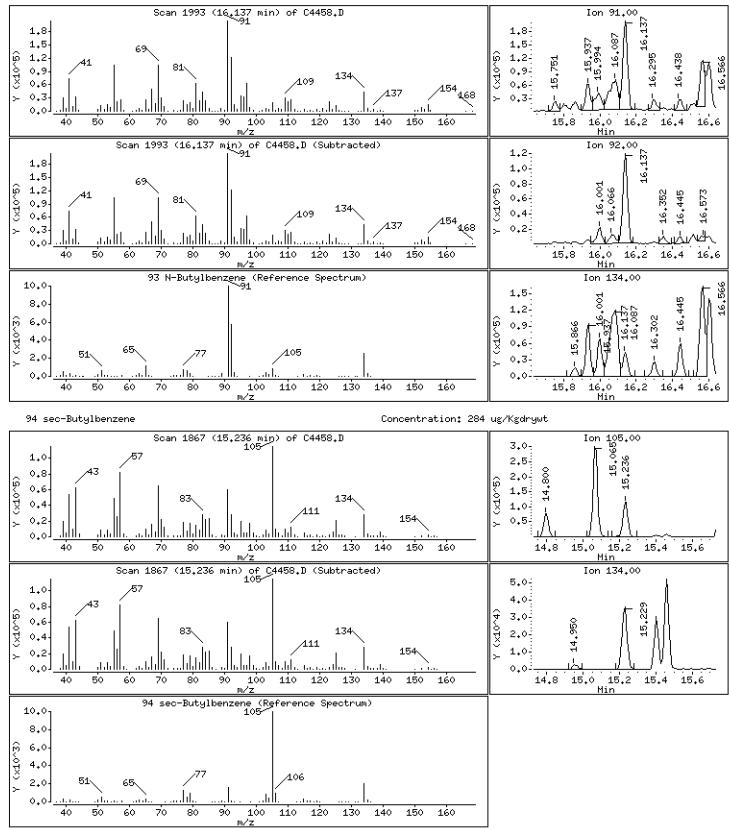
Date : 23-NOV-2013 16:23 Client ID: FD-S0-111813

Instrument: gcms-c₊i

Sample Info: SG9044-9DL



#### Concentration: 500 ug/Kgdrywt



Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4458.D

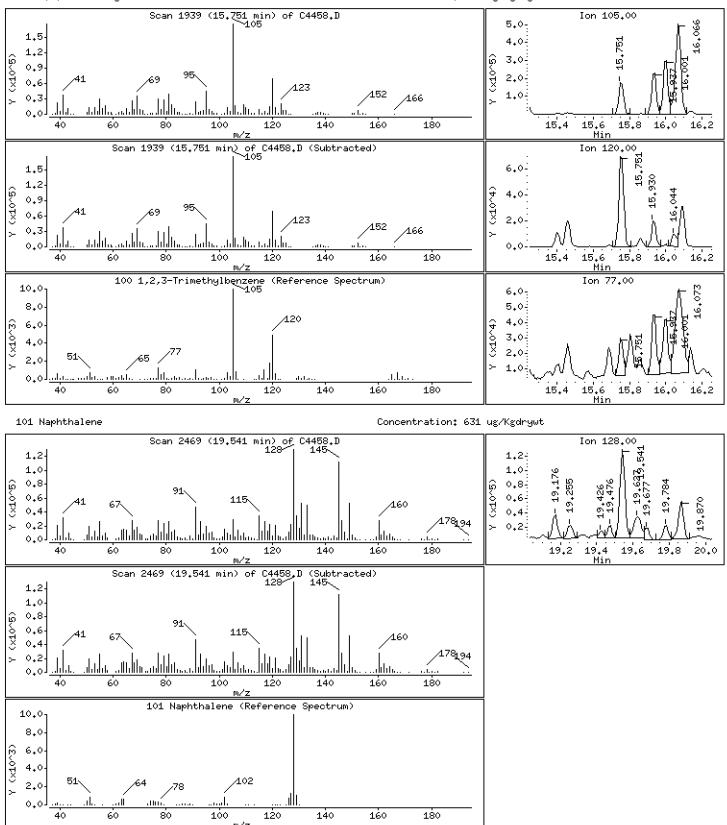
Date : 23-NOV-2013 16:23 Client ID: FD-S0-111813

Instrument: gcms-c.i

Sample Info: SG9044-9DL

100 1,2,3-Trimethylbenzene

Concentration: 512 ug/Kgdrywt







Client: AECOM Environment Lab ID: SG9044-10DL Client ID: TB-SO-110813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: C4424.D

Sample Date: 08-NOV-13 Received Date: 18-NOV-13 Extract Date: 22-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5035 **Lab Prep Batch:** WG134916

**Analysis Date: 22-NOV-13** 

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: 100

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	120	ug/Kgdrywt	1	5	250	46.	120
Ethylbenzene	U	120	ug/Kgdrywt	1	5	250	32.	120
Methyl tert-butyl Ether	U	120	ug/Kgdrywt	1	5	250	55.	120
Toluene	U	120	ug/Kgdrywt	1	5	250	70.	120
Xylenes (Total)	U	380	ug/Kgdrywt	1	15	750	65.	380
m+p-Xylenes	U	250	ug/Kgdrywt	1	10	500	85.	250
o-Xylene	U	120	ug/Kgdrywt	1	5	250	65.	120
p-Bromofluorobenzene		88.8	%					
Toluene-D8		92.5	%					
1,2-Dichloroethane-D4		95.4	%					
Dibromofluoromethane		87.9	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4424.D

Report Date: 02-Dec-2013 12:01

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4424.D

Lab Smp Id: SG9044-10DL Client Smp ID: TB-SO-110813

Inj Date : 22-NOV-2013 12:07

Inst ID: gcms-c.i

Operator : REC
Smp Info : SG9044-10DL
Misc Info : WG134916, WG134365-4

Comment : SW846 5035,MED
Method : \Target\_server\gg\chem\gcms-c.i\C112213.b\C826A90.m

Meth Date: 02-Dec-2013 12:00 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 8

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

### Concentration Formula:

Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description
DF	1.000	Dilution Factor
M	0.0000	% moisture
Vo	40000.000	Prep Volume (uL)
Ws	5.000	Weight of Sample (g)
Vt	5.000	Volume of MeOH (mL)
Va	800.000	MeOH Aliquot (uL)
Cpnd Variable		Local Compound Variable

					CONCENT	RATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT RE	EL RT RESP	ONSE (ug/l)	(ug/Kgdrywt)	REVIEW COD
=======================================	====	====				======	========
\$ 37 Dibromofluoromethane	113	7.551	7.549 (0.9	923) 25	0638 43.9694	2200	
* 42 Pentafluorobenzene	168	8.180	8.178 (1.0	000) 74	7375 50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.231	8.228 (1.0	006) 29	4729 47.7132	2380	
* 49 1,4-Difluorobenzene	114	8.838	8.836 (1.0	000) 134	2918 50.0000		
\$ 55 Toluene-D8	98	10.454	10.452 (1.1	183) 90	7439 46.2501	2310	
* 66 Chlorobenzene-D5	117	12.335	12.340 (1.0	000) 133	8990 50.0000		
\$ 76 P-Bromofluorobenzene	95	13.994	13.992 (1.5	583) 40	6781 44.3918	2220	
* 91 1,4-Dichlorobenzene-D4	152	15.688	15.686 (1.0	000) 72	1442 50.0000		





**Client:** AECOM Environment

Lab ID: SG9180-1

**Client ID:** RS-MW1-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6923.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extract Date: 27-NOV-13
Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		93.0	%					
Toluene-d8		95.7	%					
1,2-Dichloroethane-d4		92.3	%					
Dibromofluoromethane		92.4	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6923.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6923.D

Lab Smp Id: SG9180-1 Client Smp ID: RS-MW1-112013

Inj Date : 27-NOV-2013 13:52

Operator : REC Smp Info : SG9180-1 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \Target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 9

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged

Local Compound Variable Cpnd Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=	=======================================	====	====			======	======	========
\$	37 Dibromofluoromethane	113	7.413	7.408 (0.920)	324597	46.1757	46.2	
*	42 Pentafluorobenzene	168	8.057	8.052 (1.000)	692313	50.0000		
\$	45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.004)	451556	46.1383	46.1	
*	49 1,4-Difluorobenzene	114	8.714	8.710 (1.000)	1175218	50.0000		
\$	55 Toluene-D8	98	10.338	10.333 (1.186)	1292451	47.8488	47.8	
*	66 Chlorobenzene-D5	117	12.204	12.199 (1.000)	1096988	50.0000		
\$	76 P-Bromofluorobenzene	95	13.848	13.843 (1.589)	510456	46.5068	46.5	
*	91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	672200	50.0000		





**Client:** AECOM Environment

Lab ID: SG9180-2

**Client ID:** RS-MW2-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6924.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

**Extracted By:** REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	L	3.3	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		97.1	%					
Toluene-d8		99.7	%					
1,2-Dichloroethane-d4		92.4	%					
Dibromofluoromethane		95.2	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6924.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6924.D

Lab Smp Id: SG9180-2 Client Smp ID: RS-MW2-112013

Inj Date : 27-NOV-2013 14:24

Operator : REC Smp Info : SG9180-2 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \Target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 10

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cond Variable		I agal Compound Variable

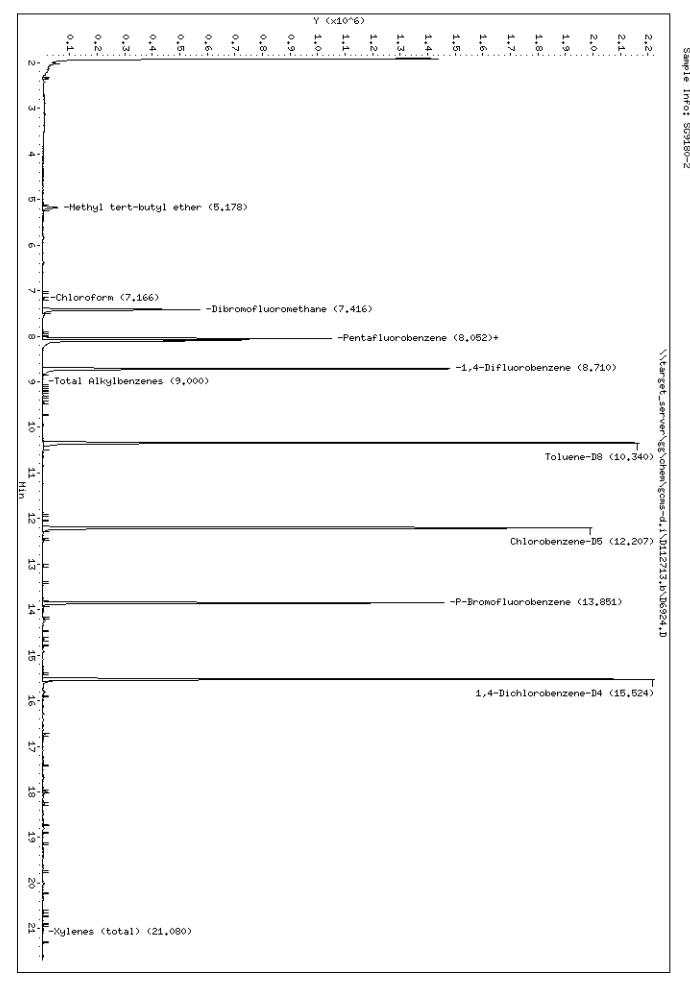
Local Compound Variable Cpnd Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=		====	====	=======================================		======	======	========
	19 Methyl tert-butyl ether	73	5.178	5.170 (0.643)	63914	3.27190	3.3	
	34 Chloroform	83	7.165	7.165 (0.890)	4128	0.32936	0.33(aH)	
\$	37 Dibromofluoromethane	113	7.416	7.408 (0.921)	319869	47.5926	47.6	
*	42 Pentafluorobenzene	168	8.052	8.052 (1.000)	661918	50.0000		
\$	45 1,2-Dichloroethane-D4	65	8.095	8.095 (1.005)	432107	46.1784	46.2	
*	49 1,4-Difluorobenzene	114	8.717	8.710 (1.000)	1106903	50.0000		
\$	55 Toluene-D8	98	10.340	10.333 (1.186)	1268398	49.8564	49.8	
*	66 Chlorobenzene-D5	117	12.206	12.199 (1.000)	1037018	50.0000		
\$	76 P-Bromofluorobenzene	95	13.851	13.843 (1.589)	501817	48.5414	48.5	
*	91 1,4-Dichlorobenzene-D4	152	15.524	15.517 (1.000)	617291	50.0000		

### QC Flag Legend

H - Operator selected an alternate compound hit.

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6924.D

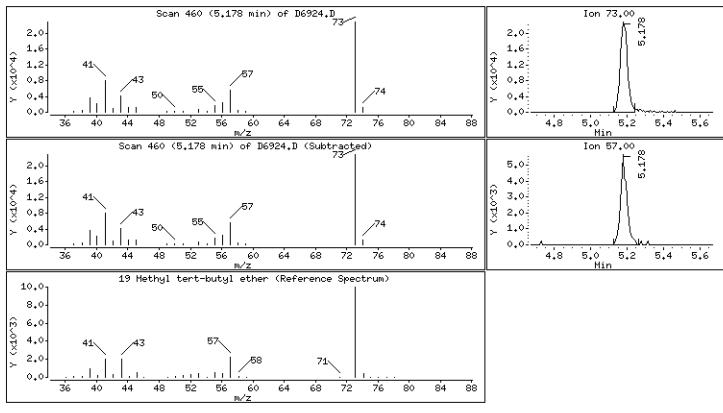
Date : 27-NOV-2013 14:24 Client ID: RS-HW2-112013

Client ID: RS-MW2-112013 Instrument: gcms-d.i

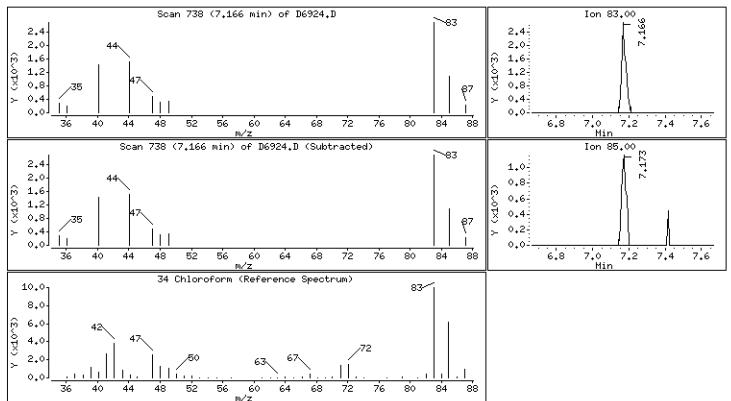
Sample Info: SG9180-2

### 19 Methyl tert-butyl ether

Concentration: 3.3 ug/l



34 Chloroform Concentration: 0.33 ug/l







**Client:** AECOM Environment

Lab ID: SG9180-3

**Client ID:** RS-MW3-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6925.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

Analyst. REC

Analysis Date: 27-NOV-13 Analyst: REC

**Analysis Method:** SW846 8260B **Matrix:** AQ

% Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		95.4	%					
Toluene-d8		98.0	%					
1,2-Dichloroethane-d4		93.2	%					
Dibromofluoromethane		93.7	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6925.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6925.D

Lab Smp Id: SG9180-3 Client Smp ID: RS-MW3-112013

Inj Date : 27-NOV-2013 14:57

Operator : REC Smp Info : SG9180-3 Misc Info : WG135258,WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \Target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 11

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cpnd Variable		Local Compound Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
==		====	====		: ======	======	======	========
	15 Acetone	43	4.782	4.770 (0.594)	5870	2.32214	2.3(a)	
\$	37 Dibromofluoromethane	113	7.413	7.408 (0.920)	319917	46.8656	46.9	
*	42 Pentafluorobenzene	168	8.056	8.052 (1.000)	672288	50.0000		
\$	45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.004)	442672	46.5778	46.6	
*	49 1,4-Difluorobenzene	114	8.714	8.710 (1.000)	1107994	50.0000		
\$	55 Toluene-D8	98	10.337	10.333 (1.186)	1247843	49.0002	49.0	
*	66 Chlorobenzene-D5	117	12.203	12.199 (1.000)	1052012	50.0000		
\$	76 P-Bromofluorobenzene	95	13.848	13.843 (1.589)	493485	47.6884	47.7	
*	91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	632451	50.0000		

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

 $\label{lem:decomposition} Data File: $$ \target_server\g\\chem\gcms-d.i\D112713.b\D6925.D$$ 

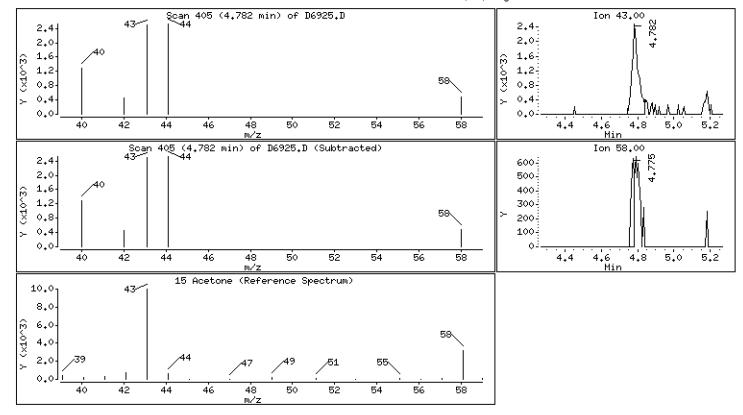
Date : 27-NOV-2013 14:57 Client ID: RS-MW3-112013

Instrument: gcms-d₊i

Sample Info: SG9180-3



#### Concentration: 2.3 ug/l







**Client:** AECOM Environment

Lab ID: SG9180-4

**Client ID:** RS-MW4-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6926.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		94.4	%					
Toluene-d8		96.8	%					
1,2-Dichloroethane-d4		94.0	%					
Dibromofluoromethane		92.1	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6926.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6926.D

Lab Smp Id: SG9180-4 Client Smp ID: RS-MW4-112013

Inj Date : 27-NOV-2013 15:30

Operator : REC Smp Info : SG9180-4 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 12

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF		Dilution Factor
Vo	5.000	sample purged

5.000 sample purged Local Compound Variable Cpnd Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL R	response	( ug/l)	( ug/l)	REVIEW CODE
	====	====			======	======	========
\$ 37 Dibromofluoromethane	113	7.409	7.408 (0.920)	305001	46.0483	46.0	
* 42 Pentafluorobenzene	168	8.053	8.052 (1.000)	652319	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.095	8.095 (1.005)	433632	47.0233	47.0	
* 49 1,4-Difluorobenzene	114	8.710	8.710 (1.000)	1092293	50.0000		
\$ 55 Toluene-D8	98	10.333	10.333 (1.186)	1214617	48.3811	48.4	
* 66 Chlorobenzene-D5	117	12.200	12.199 (1.000)	1025210	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.844	13.843 (1.589)	481395	47.1888	47.2	
* 91 1,4-Dichlorobenzene-D4	152	15.524	15.517 (1.000)	620023	50.0000		





**Client:** AECOM Environment

Lab ID: SG9180-5

**Client ID:** RS-MW5-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6927.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	JL	0.72	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		98.8	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		97.8	%					
Dibromofluoromethane		96.9	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6927.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6927.D

Lab Smp Id: SG9180-5 Client Smp ID: RS-MW5-112013

Inj Date : 27-NOV-2013 16:03

Operator : REC Smp Info : SG9180-5 Misc Info : WG135258,WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 13

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cpnd Variable		Local Compound Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
==		====	====		=======	======	======	========
	19 Methyl tert-butyl ether	73	5.184	5.170 (0.644)	13144	0.71997	0.72(a)	
\$	37 Dibromofluoromethane	113	7.407	7.408 (0.920)	304366	48.4561	48.4	
*	42 Pentafluorobenzene	168	8.051	8.052 (1.000)	618614	50.0000		
\$	45 1,2-Dichloroethane-D4	65	8.094	8.095 (1.005)	427468	48.8805	48.9	
*	49 1,4-Difluorobenzene	114	8.709	8.710 (1.000)	1026905	50.0000		
\$	55 Toluene-D8	98	10.332	10.333 (1.186)	1197897	50.7533	50.8	
*	66 Chlorobenzene-D5	117	12.205	12.199 (1.000)	977573	50.0000		
\$	76 P-Bromofluorobenzene	95	13.843	13.843 (1.589)	474049	49.4276	49.4	
*	91 1,4-Dichlorobenzene-D4	152	15.523	15.517 (1.000)	590821	50.0000		

#### QC Flag Legend

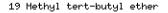
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

 $\label{lem:decomposition} Data File: $$ \target_server\g\\chem\gcms-d.i\D112713.b\D6927.D$$ 

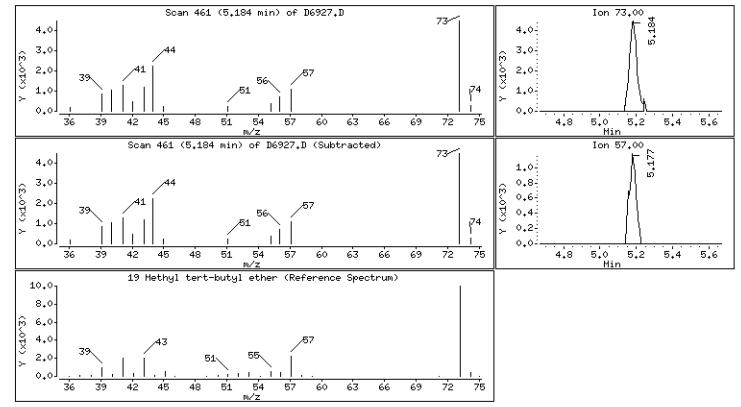
Date : 27-NOV-2013 16:03 Client ID: RS-MW5-112013

Instrument: gcms-d.i

Sample Info: SG9180-5



#### Concentration: 0.72 ug/l







**Client:** AECOM Environment

Lab ID: SG9180-6

**Client ID:** RS-MW6-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6928.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extract Date: 27-NOV-13 Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

**Analyst:** REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		94.2	%					
Toluene-d8		97.6	%					
1,2-Dichloroethane-d4		94.6	%					
Dibromofluoromethane		97.4	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6928.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6928.D

Lab Smp Id: SG9180-6 Client Smp ID: RS-MW6-112013

Inj Date : 27-NOV-2013 16:36

Operator : REC Smp Info : SG9180-6 Misc Info : WG135258,WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 14

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged

Cpnd Variable Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL R	T RESPONSE	(ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		== ======	======	======	========
\$ 37 Dibromofluoromethane	113	7.413	7.408 (0.921)	316242	48.6869	48.7	
* 42 Pentafluorobenzene	168	8.050	8.052 (1.000)	639705	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.093	8.095 (1.005)	427607	47.2843	47.3	
* 49 1,4-Difluorobenzene	114	8.715	8.710 (1.000)	1076280	50.0000		
\$ 55 Toluene-D8	98	10.331	10.333 (1.185)	1206917	48.7896	48.8	
* 66 Chlorobenzene-D5	117	12.204	12.199 (1.000)	1012001	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.841	13.843 (1.588)	473434	47.0989	47.1	
* 91 1,4-Dichlorobenzene-D4	152	15.522	15.517 (1.000)	614661	50.0000		





**Client:** AECOM Environment

Lab ID: SG9180-7

**Client ID:** RS-MW7-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6929.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		99.4	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		99.8	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6929.D

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6929.D

Lab Smp Id: SG9180-7 Client Smp ID: RS-MW7-112013

Inj Date : 27-NOV-2013 17:09

Operator : REC Smp Info : SG9180-7 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 15

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cond Wariable		I agal Compound Wariahl

Local Compound Variable Cpnd Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		= ======	======	======	========
\$ 37 Dibromofluoromethane	113	7.412	7.408 (0.920)	304119	49.9287	49.9	
* 42 Pentafluorobenzene	168	8.056	8.052 (1.000)	599881	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.004)	430092	50.7164	50.7	
* 49 1,4-Difluorobenzene	114	8.714	8.710 (1.000)	1018478	50.0000		
\$ 55 Toluene-D8	98	10.337	10.333 (1.186)	1197339	51.1494	51.1	
* 66 Chlorobenzene-D5	117	12.203	12.199 (1.000)	958556	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.848	13.843 (1.589)	473032	49.7296	49.7	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	579496	50.0000		





**Client:** AECOM Environment

Lab ID: SG9180-8

**Client ID:** RS-MW8-112013

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6930.D

Sample Date: 20-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

**Extracted By:**REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

**Analyst: REC** 

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		95.6	%					
Toluene-d8		98.0	%					
1,2-Dichloroethane-d4		100.	%					
Dibromofluoromethane		98.1	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6930.D

Report Date: 02-Dec-2013 12:22

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6930.D

Lab Smp Id: SG9180-8 Client Smp ID: RS-MW8-112013

Inj Date : 27-NOV-2013 17:42

Operator : REC Smp Info : SG9180-8 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 16

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

		QUANT SIG					ON-COLUMN	FINAL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
========		====	====			======	======	======	========
34 Chlor	coform	83	7.173	7.165	(0.891)	9097	0.78409	0.78(a)	
\$ 37 Dibro	omofluoromethane	113	7.409	7.408	(0.920)	305221	49.0591	49.0	
* 42 Penta	afluorobenzene	168	8.052	8.052	(1.000)	612726	50.0000		
\$ 45 1,2-1	Dichloroethane-D4	65	8.095	8.095	(1.005)	434409	50.1516	50.2	
* 49 1,4-0	Difluorobenzene	114	8.710	8.710	(1.000)	1045793	50.0000		
\$ 55 Tolue	ene-D8	98	10.333	10.333	(1.186)	1177351	48.9819	49.0	
* 66 Chlor	robenzene-D5	117	12.199	12.199	(1.000)	992590	50.0000		
\$ 76 P-Bro	omofluorobenzene	95	13.844	13.843	(1.589)	466981	47.8112	47.8	
* 91 1,4-0	Dichlorobenzene-D4	152	15.524	15.517	(1.000)	594739	50.0000		

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6930.D

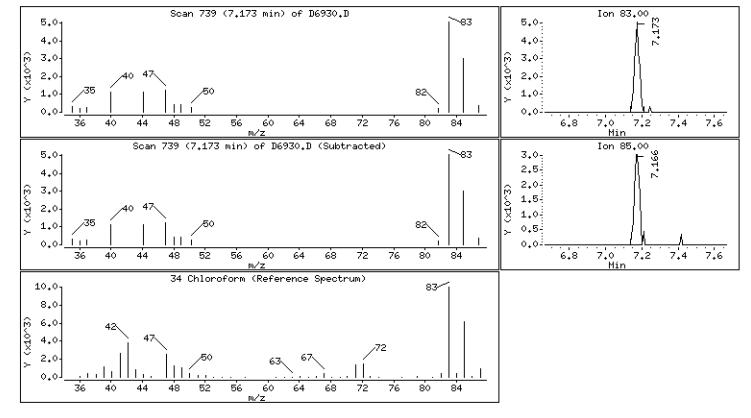
Date : 27-NOV-2013 17:42 Client ID: RS-MW8-112013

Instrument: gcms-d.i

Sample Info: SG9180-8



#### Concentration: 0.78 ug/l







**Client:** AECOM Environment

Lab ID: SG9180-9

Client ID: FD-GW-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6931.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extracted By: REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

**Report Date:** 02-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	JL	0.60	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		94.2	%					
Toluene-d8		98.2	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		99.2	%					

600 Technology Way

P.O. Box 540, Scarborough, ME 04070 Tel:(207) 874-2400 Fax:(207) 775-4029 Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6931.D

Report Date: 02-Dec-2013 12:22

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6931.D

Lab Smp Id: SG9180-9 Client Smp ID: FD-GW-112113

Inj Date : 27-NOV-2013 18:15

Operator : REC Inst ID: gcms-d.i

Smp Info : SG9180-9 Misc Info : WG135258, WG134694-4

Comment : SW846 5030 : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 17

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

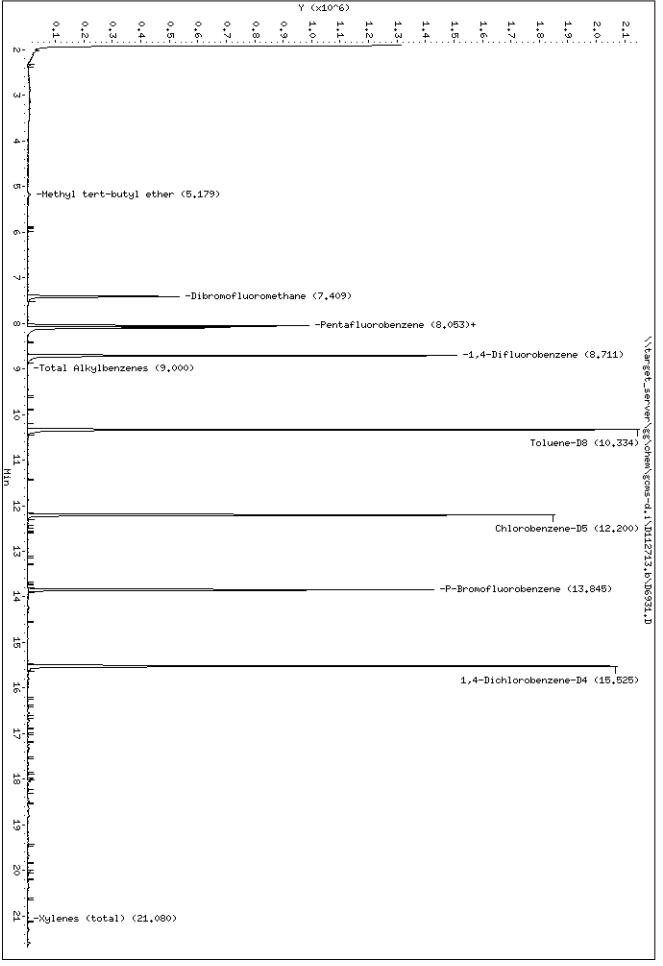
Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cpnd Variable		Local Compound Variable

CONCENTRATIONS OUANT SIG ON-COLUMN FINAL MASS RT EXP RT REL RT RESPONSE ( ug/l) ( ug/l) REVIEW CODE Compounds ==== ---- ------ ------ ------======== 73 5.178 5.170 (0.643) 10764 0.60160 19 Methyl tert-butyl ether 0.60(aH) 113 305191 49.5756 7.409 7.408 (0.920) \$ 37 Dibromofluoromethane 49.6 168 42 Pentafluorobenzene 8.052 8.052 (1.000) 606283 50.0000 65 \$ 45 1,2-Dichloroethane-D4 8.095 8.095 (1.005) 431567 50.3529 50.4 114 \* 49 1,4-Difluorobenzene 8.710 8.710 (1.000) 1041589 50.0000 \$ 55 Toluene-D8 98 10.333 10.333 (1.186) 1175347 49.0959 49.1 117 \* 66 Chlorobenzene-D5 12.207 12.199 (1.000) 966977 50.0000 95 13.844 13.843 (1.589) 458030 47.0840 47.1 \$ 76 P-Bromofluorobenzene \* 91 1,4-Dichlorobenzene-D4 152 15.524 15.517 (1.000) 586115 50.0000

#### QC Flag Legend

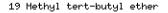
- a Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- H Operator selected an alternate compound hit.



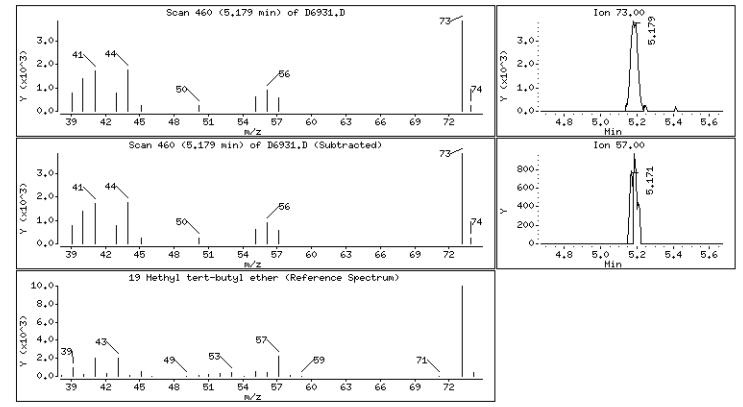
Date : 27-NOV-2013 18:15 Client ID: FD-GW-112113

Client ID: FD-GW-112113 Instrument: gcms-d.i

Sample Info: SG9180-9



### Concentration: 0.60 ug/l







# **Report of Analytical Results**

**Client:** AECOM Environment

Lab ID: SG9180-10

**Client ID:** TB-GW-110813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6922.D

Sample Date: 08-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

**Extracted By:** REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

**Analyst: REC** 

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

**Report Date:** 02-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	UL	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		100.	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		97.0	%					
Dibromofluoromethane		99.1	%					

Report Date: 02-Dec-2013 12:21

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6922.D

Lab Smp Id: SG9180-10 Client Smp ID: TB-GW-110813

Inj Date : 27-NOV-2013 13:19

Operator : REC Smp Info : SG9180-10 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \Target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 8

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cond Variable		I agal Compound Variable

Local Compound Variable Cpnd Variable

		CONCENTRATIONS					
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====			======	======	========
14 Methylene Chloride	84	4.692	4.691 (0.583)	14268	1.83843	1.8(a)	
\$ 37 Dibromofluoromethane	113	7.409	7.408 (0.920)	326714	49.5720	49.6	
* 42 Pentafluorobenzene	168	8.052	8.052 (1.000)	649087	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.095	8.095 (1.005)	445143	48.5119	48.5	
* 49 1,4-Difluorobenzene	114	8.710	8.710 (1.000)	1085675	50.0000		
\$ 55 Toluene-D8	98	10.333	10.333 (1.186)	1290198	51.7049	51.7	
* 66 Chlorobenzene-D5	117	12.199	12.199 (1.000)	1035911	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.844	13.843 (1.589)	509138	50.2125	50.2	
* 91 1,4-Dichlorobenzene-D4	152	15.524	15.517 (1.000)	615321	50.0000		

### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

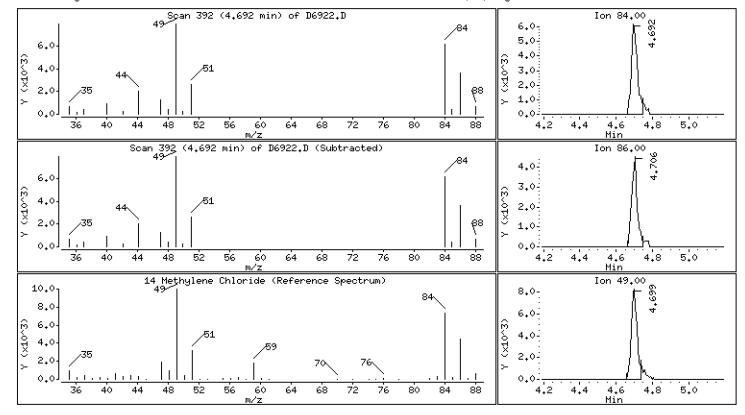
Date : 27-NOV-2013 13:19 Client ID: TB-GW-110813

Client ID: TB-GW-110813 Instrument: gcms-d.i

Sample Info: SG9180-10

### 14 Methylene Chloride

Concentration: 1.8 ug/l







# **Report of Analytical Results**

**Client:** AECOM Environment

Lab ID: SG9180-11

Client ID: IDW-GW-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: D6932.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13 Extract Date: 27-NOV-13

Extract Date: 27-NOV-13
Extracted By: REC

Extraction Method: SW846 5030 Lab Prep Batch: WG135258 **Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

**Report Date:** 02-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	JL	0.61	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	J	0.92	ug/L	1	3	3.0	0.25	1.5
o-Xylene	J	0.92	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		97.4	%					
Toluene-d8		99.0	%					
1,2-Dichloroethane-d4		100.	%					
Dibromofluoromethane		97.3	%					

Report Date: 02-Dec-2013 12:22

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6932.D

Lab Smp Id: SG9180-11 Client Smp ID: IDW-GW-112113

Inj Date : 27-NOV-2013 18:48

Operator : REC Smp Info : SG9180-11 Misc Info : WG135258, WG134694-4 Inst ID: gcms-d.i

Comment : SW846 5030
Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 18

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged Local Compound V DF Vo

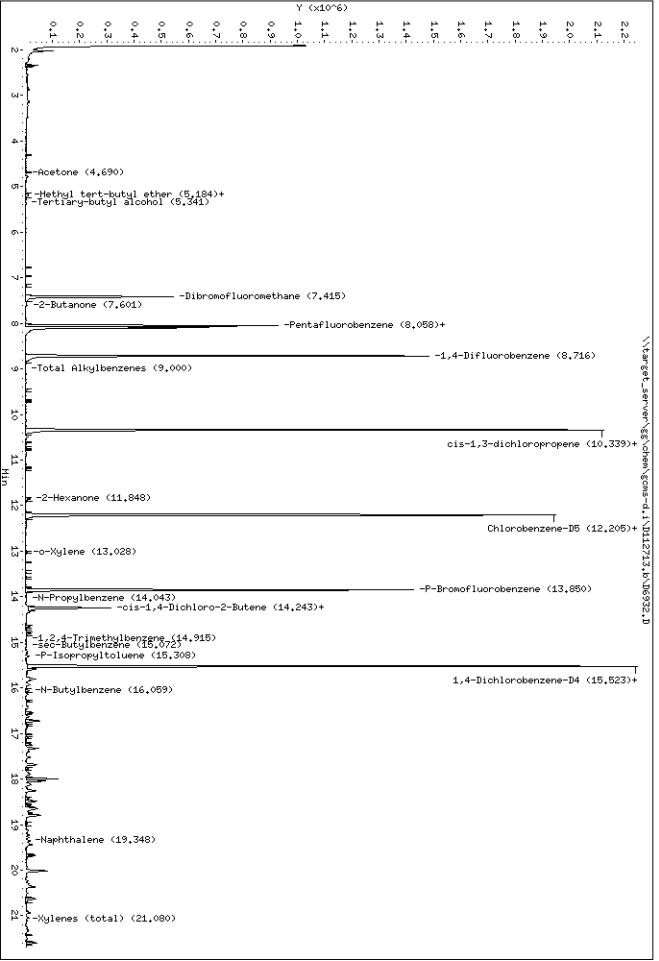
Cpnd Variable Local Compound Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
Comp	ounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
====		====	====		=======	======	======	========
	8 Tertiary-butyl alcohol	59	5.341	5.342 (0.663)	384	3.96484	4.0(a)	
1	5 Acetone	43	4.783	4.770 (0.594)	13527	6.00170	6.0	
1	9 Methyl tert-butyl ether	73	5.190	5.170 (0.644)	10854	0.61357	0.61(a)	
2	0 Acetonitrile	39	5.198	5.535 (0.645)	1551	9.19836	9.2(a)	
\$ 3	7 Dibromofluoromethane	113	7.414	7.408 (0.920)	296172	48.6612	48.7	
4	0 2-Butanone	43	7.600	7.573 (0.943)	5454	1.88757	1.9(a)	
* 4	2 Pentafluorobenzene	168	8.058	8.052 (1.000)	599423	50.0000		
\$ 4	5 1,2-Dichloroethane-D4	65	8.093	8.095 (1.004)	425423	50.2042	50.2	
4	7 1,2-Dichloroethane	62	8.051	8.180 (0.924)	2528	0.23259	0.23(a)	
* 4	9 1,4-Difluorobenzene	114	8.715	8.710 (1.000)	1029658	50.0000		
5	3 cis-1,3-dichloropropene	75	10.339	10.118 (1.186)	318	0.53070	0.53(a)	
\$ 5	5 Toluene-D8	98	10.339	10.333 (1.186)	1171478	49.5013	49.5	
6	5 2-Hexanone	43	11.847	11.841 (0.971)	13922	12.6740	12.7	
* 6	6 Chlorobenzene-D5	117	12.205	12.199 (1.000)	986748	50.0000		
15	2 1-Chlorohexane	91	12.269	12.199 (1.005)	3821	0.38546	0.38(a)	
м 7	0 Xylenes (total)	106			2100	0.92488	0.92(a)	
7	2 o-Xylene	106	13.027	13.021 (1.067)	2100	0.92488	0.92(a)	
\$ 7	6 P-Bromofluorobenzene	95	13.849	13.843 (1.589)	468280	48.6955	48.7	
7	7 cis-1,4-Dichloro-2-Butene	53	14.243	13.936 (0.918)	12078	4.26015	4.3	
8	0 N-Propylbenzene	91	14.042	14.044 (0.905)	1579	1.80826	1.8	
8	1 1,1,2,2-Tetrachloroethane	83	14.243	14.129 (0.918)	32415	2.92262	2.9	
8	2 1,3,5-Trimethylbenzene	105	14.335	14.330 (0.924)	5691	1.88811	1.9	
8	8 1,2,4-Trimethylbenzene	105	14.915	14.916 (0.961)	2048	1.94881	1.9	
8	9 P-Isopropyltoluene	119	15.308	15.309 (0.986)	3837	2.24645	2.2	

Data File:  $\t server \g \chem \gcms-d.i\D112713.b\D6932.D$  Report Date: 02-Dec-2013 12:22

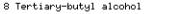
		CONCENTRATIONS					
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RI	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====		= ======	======	======	========
* 91 1,4-Dichlorobenzene-D4	152	15.522	15.517 (1.000)	617177	50.0000		
93 N-Butylbenzene	91	15.973	15.974 (1.029)	1056	2.14097	2.1	
94 sec-Butylbenzene	105	15.072	15.080 (0.971)	1158	1.90736	1.9	
100 1,2,3-Trimethylbenzene	105	15.594	15.588 (1.005)	20184	0.68097	0.68(a)	
101 Naphthalene	128	19.348	19.328 (1.246)	3749	2.95043	3.0	
M 153 Total Alkylbenzenes	100			15369	11.9400	11.9	

## QC Flag Legend

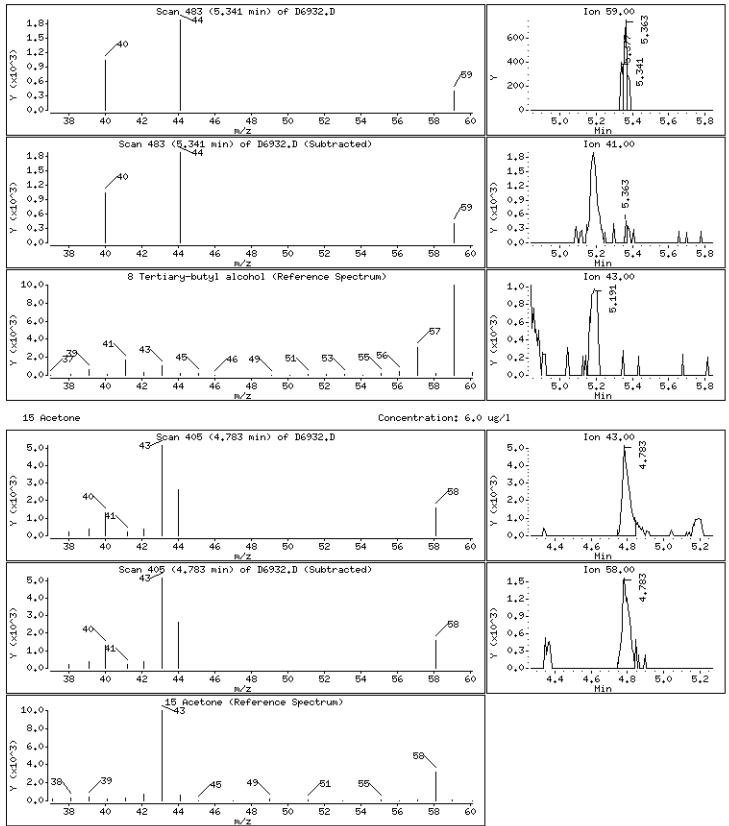


Date : 27-NOV-2013 18:48

Client ID: IDW-GW-112113 Instrument: gcms-d.i



Concentration: 4.0 ug/l

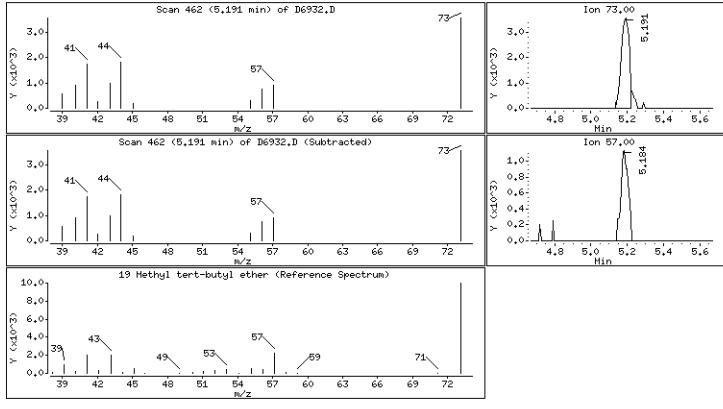


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

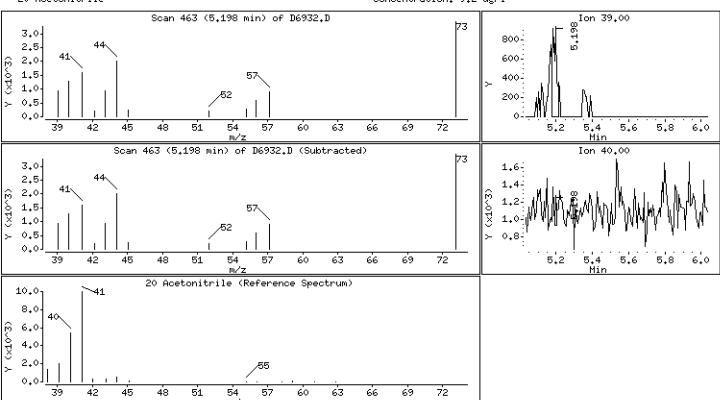
D: IDW-GW-112113 Instrument: gcms-d.i



Concentration: 0.61 ug/l



20 Acetonitrile Concentration: 9.2 ug/l

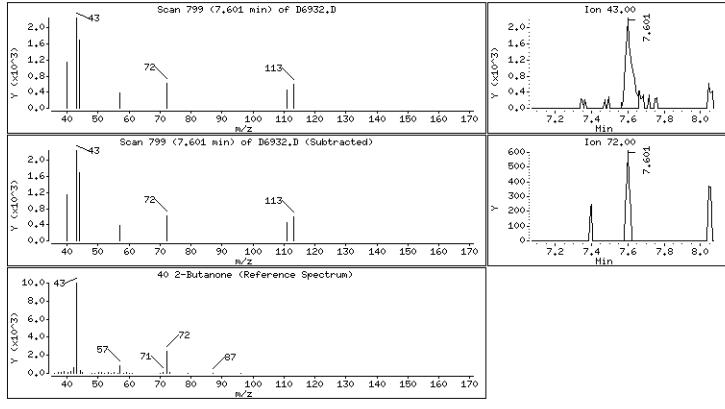


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Client ID: IDW-GW-112113 Instrument: gcms-d.i

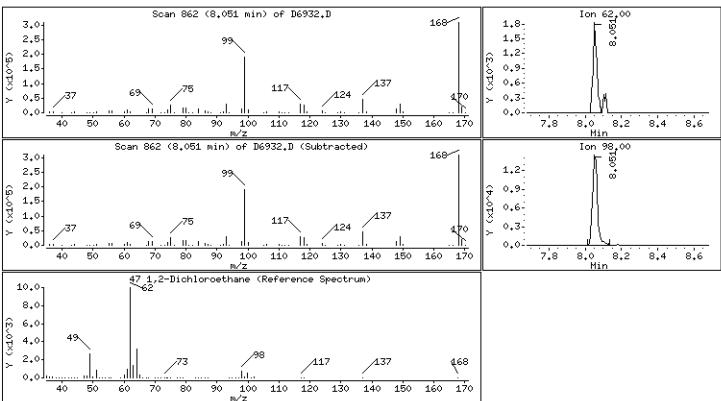


Concentration: 1.9 ug/l



47 1,2-Dichloroethane

Concentration: 0.23 ug/l

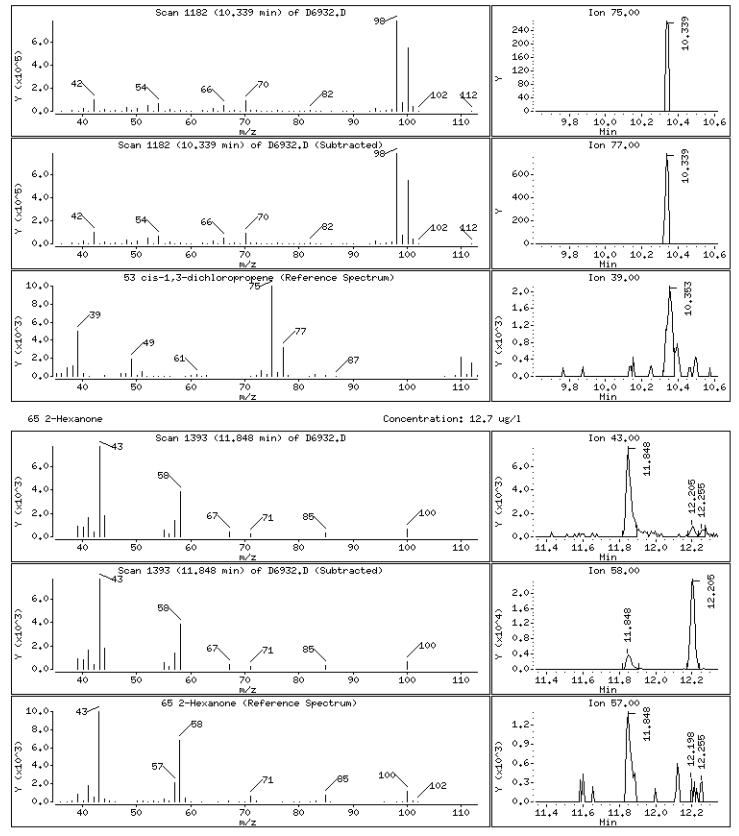


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms-d.i

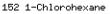


Concentration: 0.53 ug/l

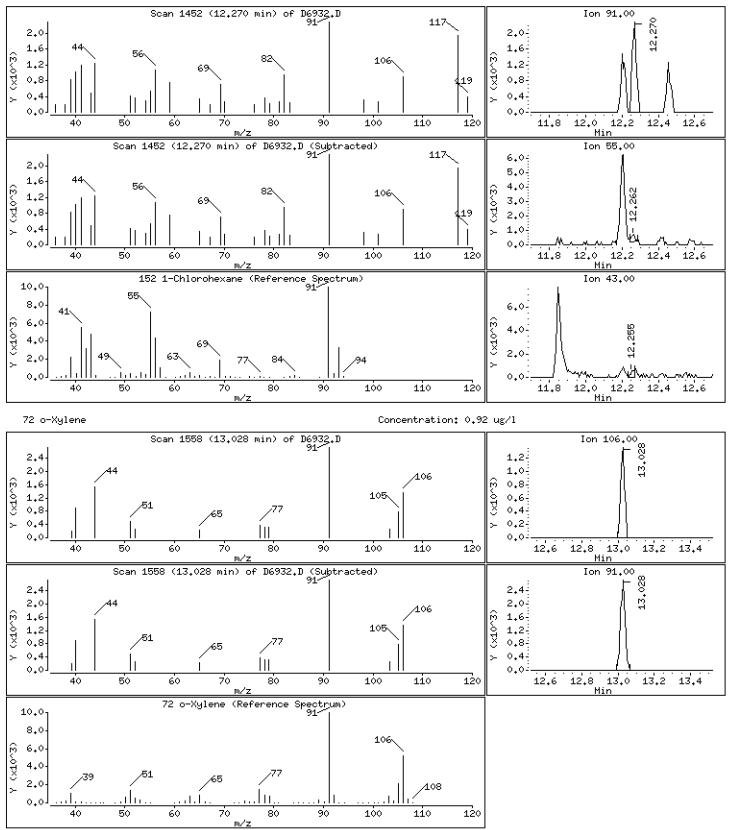


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms-d.i



Concentration: 0.38 ug/l

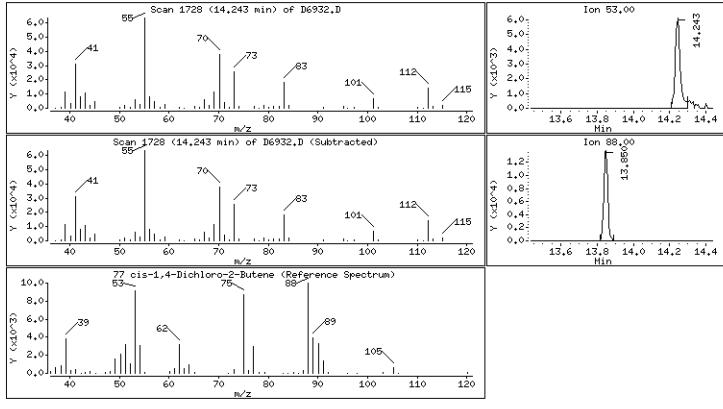


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms-d.i

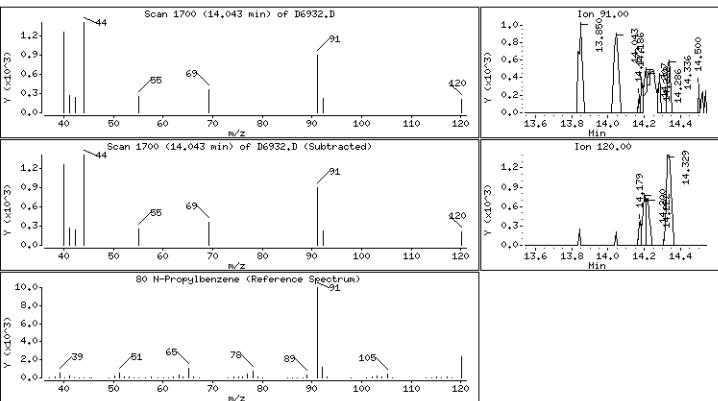
77 cis-1,4-Dichloro-2-Butene

Concentration: 4.3 ug/l



80 N-Propylbenzene

Concentration: 1.8 ug/l

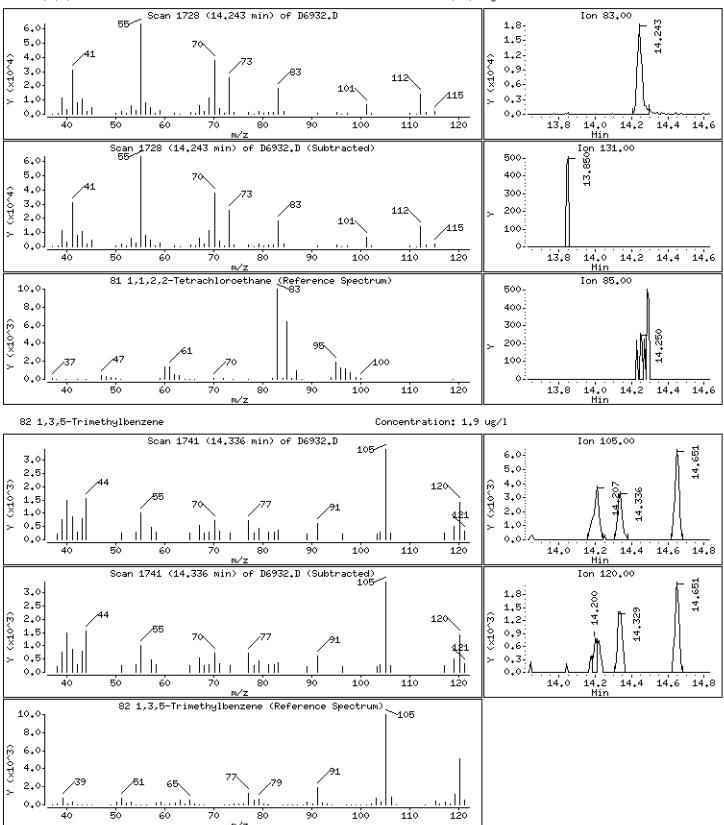


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Client ID: IDW-GW-112113 Instrument: gcms-d.i

81 1,1,2,2-Tetrachloroethane

Concentration: 2.9 ug/l

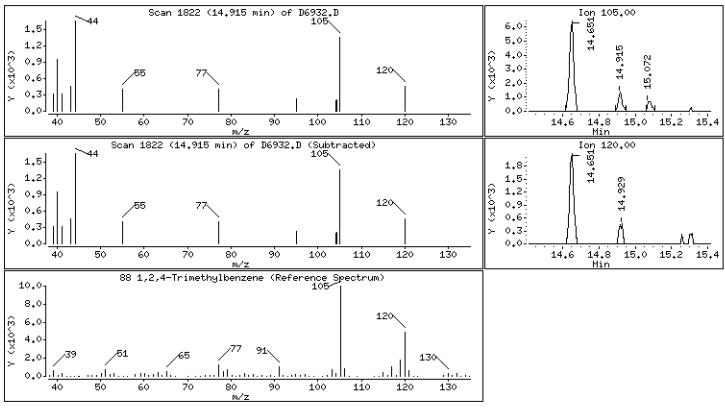


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms-d.i

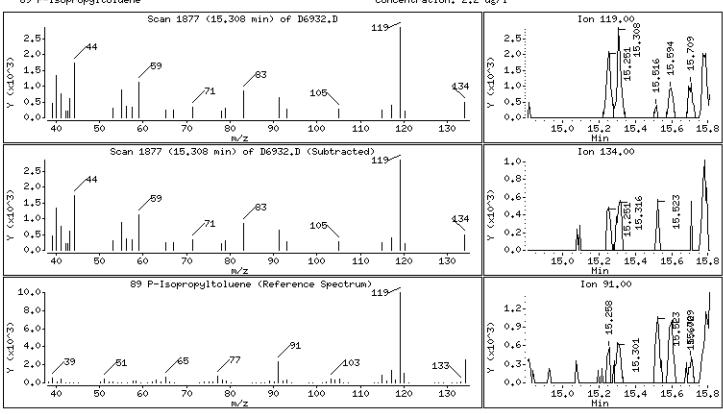
88 1,2,4-Trimethylbenzene

Concentration: 1.9 ug/l



89 P-Isopropyltoluene

Concentration: 2.2 ug/l

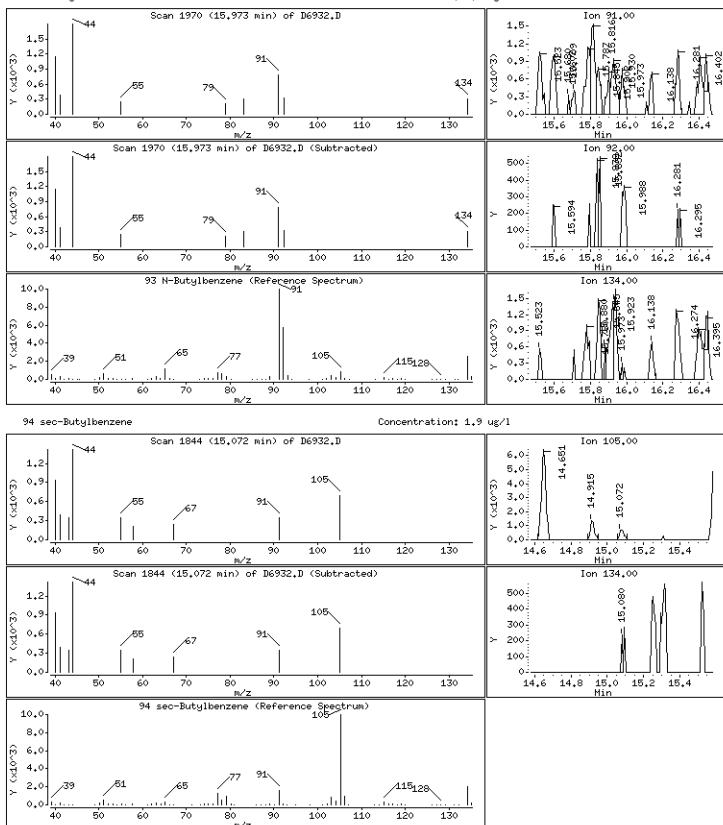


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms-d.i



Concentration: 2.1 ug/l

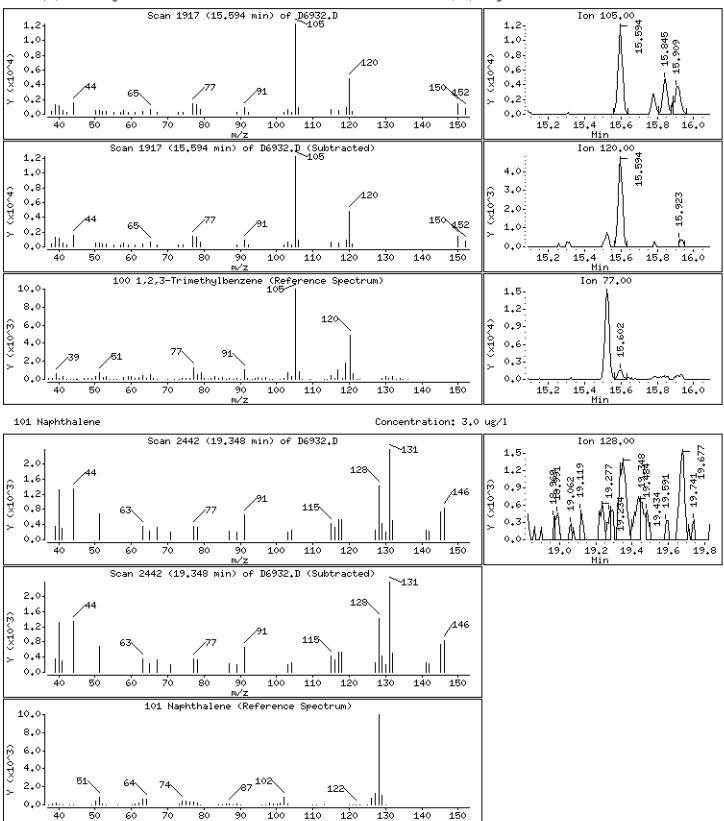


Date : 27-NOV-2013 18:48 Client ID: IDW-GW-112113

Instrument: gcms−d.i

100 1,2,3-Trimethylbenzene

Concentration: 0.68 ug/l



# **Standards Data Section**





# Form 6 Initial Calibration Summary

Lab Name : Katahdin Analytical ServicesSDG: WE40-1Project : NAVSTA Newport CTO WE40-04Instrument ID: GCMS-C

Lab File IDs: C4233.D C4232.D C4231.D Column ID:

C4230.D C4229.D C4228.D **Calibration Date(s):** 13-NOV-13 10:01

13-NOV-13 12:38

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Crv					Max	
	1.0000	5.0000	20.0000	50.0000	100.0000	200.0000	New	b	m1	m2	%RSD	%RSD	
Methyl tert-butyl ether	0.95673	1.04672	1.10024	1.04102	1.04971	1.01849	AVG		1.03548		4.53874	15.00000	О
Benzene	0.99317	0.97340	0.94424	0.92084	0.88207	0.81334	AVG		0.92118		7.13512	15.00000	0
Toluene	0.57572	0.61440	0.59578	0.57044	0.55823	0.52348	AVG		0.57301		5.47283	15.00000	О
Ethylbenzene	0.31492	0.36773	0.36565	0.35332	0.35285	0.34241	AVG		0.34948		5.52619	15.00000	О
Xylenes (total)	+++++	+++++	+++++	+++++	+++++	+++++	AVG		0.000e+00		0.000e+0	15.00000	М
m+p-Xylenes	0.37569	0.43350	0.43006	0.41753	0.41041	0.36841	AVG		0.40593		6.80815	15.00000	О
o-Xylene	0.30192	0.38784	0.40974	0.39944	0.40377	0.38545	AVG		0.38136		10.49173	15.00000	О
Dibromofluoromethane	0.41794	0.37582	0.37898	0.37307	0.37314	0.36916	AVG		0.38135		4.77766	15.00000	
1,2-Dichloroethane-D4	0.43248	0.45301	0.40979	0.40099	0.39138	0.39187	AVG		0.41325		5.97523	15.00000	
Toluene-D8	0.76855	0.78181	0.76237	0.73287	0.70071	0.63674	AVG		0.73051		7.44290	15.00000	
P-Bromofluorobenzene	0.37211	0.34427	0.34774	0.33301	0.32681	0.32312	AVG		0.34118		5.25760	15.00000	

Legend: O = Kept Original Curve

Y = Failed Minimum RF

W = Failed %RSD Value

Data File: \\target\_server\gg\chem\gcms-c.i\C111313.b\C4234A.D

Report Date: 15-Nov-2013 10:02

### Katahdin Analytical Services

### RECOVERY REPORT

Client Name: Client SDG: SDGa02236

Sample Matrix: LIQUID Fraction: VOA

Lab Smp Id: WG134365-7 Client Smp ID: WG134365-LCS

Level: LOW Operator: REC

Data Type: MS DATA SampleType: IND CHECK SpikeList File: IND\_CHECK4.1.spk Quant Type: ISTD Sublist File: SW8260-S.sub
Method File: \\target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Misc Info: WG134365, WG134365-4, SG8848-1

SPIKE COMPOUND		CONC ADDED ug/1	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Dichlorodi: 2 Chlorometha 3 Vinyl chlor 4 Bromomethan 5 Chloroethan 6 Trichlorof: 7 Diethyl Etl 8 Tertiary-b 9 1,1-Dichlor 10 Carbon Diss 11 Freon-113 12 Iodomethan 13 Acrolein 14 Methylene 15 Acetone 16 Isobutyl A 17 trans-1,2-1 18 Allyl Chlor 19 Methyl term 20 Acetonitri 21 Di-isopropy 22 Chloroprene 23 Propionitri 24 Methacrylor 25 1,1-Dichlor 26 Acrylonitri 27 Ethyl tert 28 Vinyl Aceta 29 cis-1,2-Dichlor 31 Methyl Meth 32 2,2-Dichlor 31 Methyl Meth 32 2,2-Dichlor 33 Bromochlore 34 Chloroform 35 Carbon Tetr 36 Tetrahydror 38 1,1,1-Trich 39 1,1-Dichlor 40 2-Butanone 41 Benzene	ane ride ne luoromet ner lutyl alc roethene lfide  Chloride  lcohol Dichloro ride -butyl le yl ether ile nitrile roethane ile iary-but ate chloroet roethyle nacrylat ropropan omethane rachlori furan nloroeth	50.0 50.0	34.3 40.6 43.45.6 21.9 61.9 52.9 53.9 54.0 52.7 50.0 51.0 52.7 50.3 51.0 52.7 50.3 51.0 52.7 52.7 52.7 52.7 52.7 52.7 52.7 52.7	68.58* 80.47 87.12 86.73 63.07* 97.31 100.43 99.91 122.41* 115.84 106.20 113.89 101.45 113.82 141.92* 109.36 106.56 102.75 107.73 107.61 105.27 105.38 105.12 101.65 108.63 104.25 105.67 135.05* 106.05 107.22 109.02 105.28 106.34 111.50 105.34	80-120         80-120

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4234A.D$  Report Date: 15-Nov-2013 10:02

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
43 Cyclohexane 44 Ethyl Methacrylate 46 Tertiary-amyl meth 47 1,2-Dichloroethane 50 Dibromomethane 51 1,2-Dichloropropan 52 Bromodichlorometha 53 cis-1,3-dichloropr 54 1,4-Dioxane 56 2-Chloroethylvinyl 57 Toluene 58 4-methyl-2-pentano 59 Tetrachloroethene 60 trans-1,3-Dichloro 61 1,1,2-Trichloroeth 62 Dibromochlorometha 63 1,3-Dichloropropan 64 1,2-Dibromoethane 65 2-Hexanone 67 Chlorobenzene 152 1-Chlorohexane 68 Ethylbenzene 69 1,1,1,2-Tetrachlor M 70 Xylenes (total) 71 m+p-Xylenes 72 o-Xylene 73 Styrene 74 Bromoform 75 Isopropylbenzene 77 cis-1,4-Dichloro-2 78 trans-1,4-Dichloro-2 78 trans-1,4-Dichloro-2 78 trans-1,4-Dichloro 99 Bromobenzene 80 N-Propylbenzene 81 1,1,2,2-Tetrachlor 82 1,3,5-Trimethylben 83 2-Chlorotoluene 84 1,2,3-Trichloropro 85 4-Chlorotoluene 86 tert-Butylbenzene 87 Pentachloroethane 88 1,2,4-Trimethylben 89 P-Isopropyltoluene 90 1,3-Dichlorobenzen 91 1,4-Dichlorobenzen 92 1,4-Dichlorobenzen 93 N-Butylbenzene 94 sec-Butylbenzene 95 1,2-Dichlorobenzen 96 1,2-Dibromo-3-Chlo 97 1,3,5-Trichloroben 98 Hexachlorobutadien 99 1,2,4-Trichloroben 99 1,2,4-Trichloroben 90 1,3,5-Trichloroben 91 1,2-Trichloroben 91 1,2-Trichloroben 91 1,2-Trichloroben 91 1,2-Trichloroben 91 1,3-Trichloroben 91 1,3-Trichloroben 91 1,3-Trichloroben 91 1,2-Trichloroben	0.000000000000000000000000000000000000	9.07.3.4.5.9.4.9.7.7.0.6.8.0.8.4.5.9.4.5.9.9.1.9.7.7.0.6.8.0.8.0.8.4.5.9.1.9.5.5.1.9.9.1.9.7.7.0.6.8.0.8.4.5.9.9.1.9.7.7.0.6.8.0.8.4.5.9.9.1.9.7.7.0.6.8.0.8.4.5.9.9.1.9.7.7.0.6.8.0.8.4.5.9.6.3.1.8.4.5.9.9.1.9.7.7.0.6.8.0.8.4.5.9.6.3.1.8.4.3.1.9.9.1.9.7.7.0.6.8.0.8.4.5.7.1.6.2.8.2.1.4.4.5.8.9.8.8.5.9.6.3.1.8.4.3.1.3.1.3.1.3.1.3.1.3.1.3.1.3.1.3.1.3	127.73* 105.93 103.50 106.62 104.78 96.97 109.85 108.79 101.85 81.66 102.89 111.57 99.85 107.87 100.25 103.42 116.01 107.65 107.79 113.37 107.65 101.40 113.66 102.97 107.47 100.20 115.31 100.44 101.62 1107.68 113.88 105.53 107.59 115.00 107.84 101.31 96.53 97.63 107.90 84.66	80-120         80-120

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4234A.D$  Report Date: 15-Nov-2013 10:02

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
102 1,2,3-Trichloroben	50.0	36.4	72.70*	80-120
103 Methyl Acetate	50.0	45.6	91.11	80-120
104 Methylcyclohexane	50.0	55.6	111.18	80-120
M 153 Total Alkylbenzene	350	387	110.56	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
\$ 37 Dibromofluorometha		49.1	98.14	68-128
\$ 45 1,2-Dichloroethane		47.3	94.63	67-135
\$ 55 Toluene-D8		48.6	97.22	65-128
\$ 76 P-Bromofluorobenze		45.4	90.77	56-133

Data File: \Target\_server\gg\chem\gcms-c.i\C111313.b\C4228.D

Report Date: 14-Nov-2013 07:11

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gcms-c.i\C111313.b\C4228.D

Lab Smp Id: WG134365-6 Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 10:01

Operator : REC Smp Info : WG134365-6 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030
Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 10:01 Cal File: C4228.D

Als bottle: 1 Calibration Sample, Level: 6

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF 1.000 Dilution Factor
Vo 5.000 sample purged
Cpnd Variable Local Compound T

Local Compound Variable

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.051	2.051 (0.251)	1892979	200.000	199	
2 Chloromethane	50	2.301	2.301 (0.281)	2117459	200.000	164	
3 Vinyl chloride	62	2.401	2.401 (0.293)	1766334	200.000	184	
4 Bromomethane	94	2.816	2.816 (0.344)	957689	200.000	191	
5 Chloroethane	64	2.973	2.980 (0.363)	459028	200.000	200(A)	
6 Trichlorofluoromethane	101	3.159	3.166 (0.386)	2154849	200.000	216(A)	
7 Diethyl Ether	59	3.602	3.602 (0.440)	1119790	200.000	192	
8 Tertiary-butyl alcohol	59	5.497	5.490 (0.672)	665480	1000.00	1010(A)	
9 1,1-Dichloroethene	96	3.881	3.881 (0.474)	967585	200.000	193	
10 Carbon Disulfide	76	3.910	3.917 (0.478)	3426371	200.000	177	
11 Freon-113	151	3.945	3.946 (0.482)	682416	200.000	215(A)	
12 Iodomethane	142	4.088	4.089 (0.500)	1112674	200.000	230(A)	
13 Acrolein	56	4.410	4.410 (0.539)	1210621	1000.00	1010(A)	
14 Methylene Chloride	84	4.811	4.811 (0.588)	1481697	200.000	199	
15 Acetone	43	4.903	4.904 (0.599)	2308352	1000.00	946	
16 Isobutyl Alcohol	43	8.386	8.379 (1.024)	1217922	4000.00	4470(A)	
17 trans-1,2-Dichloroethene	96	5.082	5.090 (0.621)	1252288	200.000	190	
18 Allyl Chloride	41	4.625	4.632 (0.565)	2353199	200.000	189	
19 Methyl tert-butyl ether	73	5.290	5.290 (0.646)	6794918	400.000	393	
20 Acetonitrile	39	5.697	5.697 (0.696)	461478	2000.00	1930	
21 Di-isopropyl ether	45	5.940	5.940 (0.726)	4749042	200.000	192	
22 Chloroprene	53	6.069	6.069 (0.741)	2030967	200.000	198	
23 Propionitrile	54	8.114	8.106 (0.991)	2110345	2000.00	1850	
24 Methacrylonitrile	41	8.142	8.128 (0.995)	6785601	2000.00	1990	

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4228.D$  Report Date: 14-Nov-2013 07:11

					AMOUN	NTS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT		RT RESPONSE	( ug/l)	( ug/l)	REVIEW COD
25 1.1-Dichloroethane	==== 63	6.105	6.105 (0.746		200.000	190	=======
26 Acrylonitrile	52	6.198	6.198 (0.757		1000.00	967	
27 Ethyl tertiary-butyl ether	59	6.498	6.498 (0.794		200.000	208(A)	
28 Vinyl Acetate	43	6.519	6.520 (0.738		200.000	208(A)	
29 cis-1,2-Dichloroethene	96	6.906	6.913 (0.844		200.000	193	
4 30 1,2-Dichloroethylene (total		0.500	0.713 (0.01	2679807	200.000	(a)	
31 Methyl Methacrylate	41	9.694	9.694 (1.097		200.000	220(A)	
32 2,2-Dichloropropane	77	7.056	7.056 (0.862		200.000	212(A)	
33 Bromochloromethane	128	7.184	7.185 (0.878		200.000	196	
34 Chloroform	83	7.299	7.299 (0.892		200.000	191	
35 Carbon Tetrachloride	117	7.463	7.463 (0.845		200.000	215(A)	
36 Tetrahydrofuran	42	7.103	7.506 (0.916		1000.00	963	
37 Dibromofluoromethane	113	7.549	7.549 (0.922		200.000	194	
38 1,1,1-Trichloroethane	97	7.563	7.564 (0.924		200.000	200	
39 1,1-Dichloropropene	75	11.010	11.003 (1.246		200.000	210(A)	
40 2-Butanone	43	7.721	7.721 (0.943		1000.00	949	
41 Benzene	78					176	
		8.057	8.057 (0.912		200.000	1/6	
42 Pentafluorobenzene	168	8.185	8.178 (1.000			202(7)	
43 Cyclohexane	56	7.170	7.170 (0.876		200.000	203(A)	
44 Ethyl Methacrylate	69	11.188	11.189 (1.266		200.000	210(A)	
45 1,2-Dichloroethane-D4	65	8.235	8.228 (1.006		200.000	190	
46 Tertiary-amyl methyl ether	73	8.221	8.214 (1.004		200.000	206(A)	
47 1,2-Dichloroethane	62	8.321	8.314 (0.942		200.000	202(A)	
48 Trichloroethene	95	8.786	8.786 (0.994		200.000	211(A)	
49 1,4-Difluorobenzene	114	8.836	8.836 (1.000		50.0000		
50 Dibromomethane	93	9.301	9.301 (1.053		200.000	196	
51 1,2-Dichloropropane	63	9.422	9.423 (1.066		200.000	202(A)	
52 Bromodichloromethane	83	9.501	9.501 (1.075	) 2018934	200.000	204(A)	
53 cis-1,3-dichloropropene	75	10.245	10.245 (1.159		200.000	202(A)	
54 1,4-Dioxane	88	9.744	9.737 (1.103	) 261022	4000.00	3910	
55 Toluene-D8	98	10.452	10.452 (1.183	) 3819721	200.000	174	
56 2-Chloroethylvinylether	63	10.180	10.181 (1.152	) 695301	200.000	240(A)	
57 Toluene	92	10.516	10.509 (1.190	) 3140292	200.000	183	
58 4-methyl-2-pentanone	43	10.967	10.960 (1.241	) 5466551	1000.00	821	
59 Tetrachloroethene	164	10.960	10.960 (0.888	) 1091863	200.000	216(A)	
60 trans-1,3-Dichloropropene	75	11.010	11.003 (1.246	) 2149443	200.000	210(A)	
61 1,1,2-Trichloroethane	83	11.196	11.196 (1.267	) 1097255	200.000	196	
62 Dibromochloromethane	129	11.410	11.410 (0.925	) 1534226	200.000	218(A)	
63 1,3-Dichloropropane	76	11.525	11.525 (0.934	) 2356568	200.000	189	
64 1,2-Dibromoethane	107	11.696	11.696 (1.324	) 1367549	200.000	204(A)	
65 2-Hexanone	43	11.982	11.975 (0.971	) 4518169	1000.00	882	
66 Chlorobenzene-D5	117	12.340	12.340 (1.000	) 1486916	50.0000		
67 Chlorobenzene	112	12.361	12.361 (1.002	) 3175732	200.000	182	
152 1-Chlorohexane	91	12.332	12.326 (0.999	) 2242477	200.000	183	
68 Ethylbenzene	106	12.397	12.390 (1.005	) 2036528	200.000	196	
69 1,1,1,2-Tetrachloroethane	131		12.440 (1.009		200.000	208(A)	
70 Xylenes (total)	106			6674926	200.000	(a)	
71 m+p-Xylenes	106	12.590	12.583 (1.020		400.000	363	
72 o-Xylene	106		13.155 (1.067		200.000	202(A)	
73 Styrene	104		13.226 (1.072		200.000	193	
74 Bromoform	173		13.269 (1.075		200.000	226(A)	
75 Isopropylbenzene	105		13.591 (0.866		200.000	171	
	95		13.992 (1.584		200.000	189	
76 P-Bromofluorobenzene	<i>3</i> 3	14 000	14 000 (0 000	, 1330330	200.000	107	

77 cis-1,4-Dichloro-2-Butene 53 14.099 14.092 (0.898) 653710 200.000 215(A)

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4228.D$  Report Date: 14-Nov-2013 07:11

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====			======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.563	14.556 (0.928)	586105	200.000	214(A)	
79 Bromobenzene	156	14.149	14.149 (0.902)	1537977	200.000	204(A)	
80 N-Propylbenzene	91	14.192	14.185 (0.904)	6213287	200.000	153	
81 1,1,2,2-Tetrachloroethane	83	14.292	14.292 (0.911)	1939170	200.000	187	
82 1,3,5-Trimethylbenzene	105	14.485	14.478 (0.923)	4945091	200.000	169	
83 2-Chlorotoluene	91	14.420	14.413 (0.919)	4336395	200.000	175	
84 1,2,3-Trichloropropane	75	14.499	14.492 (0.924)	1464820	200.000	177	
85 4-Chlorotoluene	91	14.671	14.664 (0.935)	4382029	200.000	169	
86 tert-Butylbenzene	119	14.957	14.957 (0.953)	4995352	200.000	184	
87 Pentachloroethane	117	14.992	14.985 (0.955)	1303717	200.000	203(A)	
88 1,2,4-Trimethylbenzene	105	15.071	15.064 (0.960)	4970917	200.000	172	
89 P-Isopropyltoluene	119	15.464	15.457 (0.985)	4963942	200.000	174	
90 1,3-Dichlorobenzene	146	15.571	15.572 (0.992)	2582259	200.000	188	
* 91 1,4-Dichlorobenzene-D4	152	15.693	15.686 (1.000)	813712	50.0000		
92 1,4-Dichlorobenzene	146	15.714	15.708 (1.001)	2815475	200.000	185	
93 N-Butylbenzene	91	16.143	16.137 (1.029)	5318986	200.000	159	
94 sec-Butylbenzene	105	15.235	15.229 (0.971)	5877277	200.000	164	
95 1,2-Dichlorobenzene	146	16.394	16.387 (1.045)	2420596	200.000	192	
96 1,2-Dibromo-3-Chloropropane	75	17.745	17.745 (1.131)	319457	200.000	196	
97 1,3,5-Trichlorobenzene	180	17.802	17.803 (1.134)	1882586	200.000	188	
98 Hexachlorobutadiene	225	18.911	18.904 (1.205)	808933	200.000	180	
99 1,2,4-Trichlorobenzene	180	18.946	18.947 (1.207)	1492846	200.000	185	
100 1,2,3-Trimethylbenzene	105	15.757	15.750 (1.004)	4824977	200.000	165	
101 Naphthalene	128	19.540	19.533 (1.245)	3062428	200.000	168	
102 1,2,3-Trichlorobenzene	180	19.876	19.869 (1.267)	977997	200.000	199	
103 Methyl Acetate	43	5.132	5.133 (0.627)	1360796	200.000	201(A)	
104 Methylcyclohexane	83	8.772	8.772 (1.072)	2427580	200.000	207(A)	
M 153 Total Alkylbenzenes	100			37284852	200.000	(a)	

### QC Flag Legend

- a Target compound detected but, quantitated amount
- Below Limit Of Quantitation(BLOQ).

  A Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \Target\_server\gg\chem\gcms-c.i\C111313.b\C4229.D

Report Date: 14-Nov-2013 07:11

### Katahdin Analytical Services

Data file : \Target\_server\gg\chem\gcms-c.i\C111313.b\C4229.D

Lab Smp Id: WG134365-5 Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 10:32

Operator : REC Smp Info : WG134365-5 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030
Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 10:32 Cal File: C4229.D

Als bottle: 2 Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260FULL-LD-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor
5.000 sample purged
Local Compound N Vo

Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====	=======================================	======	======	======	========
1 Dichlorodifluoromethane	85	2.050	2.051 (0.251)	949068	100.000	101	
2 Chloromethane	50	2.300	2.301 (0.281)	1186845	100.000	93.6	
3 Vinyl chloride	62	2.400	2.401 (0.294)	935247	100.000	99.3	
4 Bromomethane	94	2.815	2.816 (0.344)	489916	100.000	99.4	
5 Chloroethane	64	2.972	2.980 (0.363)	293092	100.000	98.1	
6 Trichlorofluoromethane	101	3.165	3.166 (0.387)	1024801	100.000	105	
7 Diethyl Ether	59	3.602	3.602 (0.440)	576318	100.000	100	
8 Tertiary-butyl alcohol	59	5.496	5.490 (0.672)	316263	500.000	489	
9 1,1-Dichloroethene	96	3.880	3.881 (0.475)	495278	100.000	100	
10 Carbon Disulfide	76	3.916	3.917 (0.479)	1826716	100.000	95.9	
11 Freon-113	151	3.945	3.946 (0.482)	327073	100.000	105	
12 Iodomethane	142	4.095	4.089 (0.501)	548681	100.000	115	
13 Acrolein	56	4.410	4.410 (0.539)	594090	500.000	505	
14 Methylene Chloride	84	4.810	4.811 (0.588)	761471	100.000	102	
15 Acetone	43	4.903	4.904 (0.600)	1163475	500.000	485	
16 Isobutyl Alcohol	43	8.378	8.379 (1.024)	607095	2000.00	2260	
17 trans-1,2-Dichloroethene	96	5.089	5.090 (0.622)	638123	100.000	98.3	
18 Allyl Chloride	41	4.631	4.632 (0.566)	1185486	100.000	96.7	
19 Methyl tert-butyl ether	73	5.289	5.290 (0.647)	3446354	200.000	203	
20 Acetonitrile	39	5.697	5.697 (0.697)	241481	1000.00	1020	
21 Di-isopropyl ether	45	5.940	5.940 (0.726)	2490021	100.000	102	
22 Chloroprene	53	6.068	6.069 (0.742)	1042086	100.000	103	
23 Propionitrile	54	8.106	8.106 (0.991)	1135780	1000.00	1010	
24 Methacrylonitrile	41	8.128	8.128 (0.994)	4161669	1000.00	1020	

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4229.D$  Report Date: 14-Nov-2013 07:11

								AMOUN	TS	
			QUANT SIG					CAL-AMT	ON-COL	
Co	mpo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
==	===	=======================================	====	====			=======	======	======	========
	25	1,1-Dichloroethane	63	6.104	6.105	(0.746)	1255008	100.000	98.3	
	26	Acrylonitrile	52	6.197	6.198	(0.758)	1220203	500.000	501	
	27	Ethyl tertiary-butyl ether	59	6.497	6.498	(0.795)	2086302	100.000	108	
	28	Vinyl Acetate	43	6.519	6.520	(0.738)	1533756	100.000	106	
	29	cis-1,2-Dichloroethene	96	6.905	6.913	(0.844)	729527	100.000	100	
	31	Methyl Methacrylate	41	9.693	9.694	(1.097)	694321	100.000	107	
	32	2,2-Dichloropropane	77	7.055	7.056	(0.863)	1024213	100.000	107	
	33	Bromochloromethane	128	7.184	7.185	(0.878)	283315	100.000	97.6	
	34	Chloroform	83	7.298	7.299	(0.892)	1256854	100.000	98.4	
	35	Carbon Tetrachloride	117	7.463	7.463	(0.845)	902643	100.000	106	
	36	Tetrahydrofuran	42	7.498	7.506	(0.917)	1125553	500.000	499	
\$	37	Dibromofluoromethane	113	7.548	7.549	(0.923)	612537	100.000	97.8	
	38	1,1,1-Trichloroethane	97	7.563	7.564	(0.925)	1093858	100.000	101	
	39	1,1-Dichloropropene	75	11.002	11.003	(1.245)	1076575	100.000	105	
	40	2-Butanone	43	7.720	7.721	(0.944)	1786049	500.000	515	
	41	Benzene	78	8.056	8.057	(0.912)	2655498	100.000	95.8	
*	42	Pentafluorobenzene	168	8.178	8.178	(1.000)	820785	50.0000		
	43	Cyclohexane	56	7.169	7.170	(0.877)	1180578	100.000	104	
	44	Ethyl Methacrylate	69	11.188	11.189	(1.266)	958650	100.000	107	
\$	45	1,2-Dichloroethane-D4	65	8.235	8.228	(1.007)	642475	100.000	94.7	
	46	Tertiary-amyl methyl ether	73	8.213	8.214	(1.004)	1788761	100.000	107	
	47	1,2-Dichloroethane	62	8.321	8.314	(0.942)	817089	100.000	96.5	
	48	Trichloroethene	95	8.785	8.786	(0.994)	654970	100.000	98.7	
*	49	1,4-Difluorobenzene	114	8.835	8.836	(1.000)	1505266	50.0000		
	50	Dibromomethane	93	9.300	9.301	(1.053)	435392	100.000	94.7	
	51	1,2-Dichloropropane	63	9.422	9.423	(1.066)	722098	100.000	101	
	52	Bromodichloromethane	83	9.500	9.501	(1.075)	997260	100.000	100	
	53	cis-1,3-dichloropropene	75	10.244	10.245	(1.159)	1256170	100.000	102	
	54	1,4-Dioxane	88	9.744	9.737	(1.103)	180285	2000.00	2230	
\$	55	Toluene-D8	98	10.451	10.452	(1.183)	2109503	100.000	95.9	
	56	2-Chloroethylvinylether	63	10.180	10.181	(1.152)	312958	100.000	108	
	57	Toluene	92	10.509	10.509	(1.189)	1680563	100.000	97.4	
	58	4-methyl-2-pentanone	43	10.959	10.960	(1.240)	3258528	500.000	487	
	59	Tetrachloroethene	164	10.959	10.960	(0.888)	506615	100.000	104	
	60	trans-1,3-Dichloropropene	75	11.002	11.003	(1.245)	1076575	100.000	105	
	61	1,1,2-Trichloroethane	83	11.195	11.196	(1.267)	550035	100.000	97.9	
	62	Dibromochloromethane	129	11.409	11.410	(0.925)	726396	100.000	107	
	63	1,3-Dichloropropane	76	11.524	11.525	(0.934)	1193773	100.000	99.9	
	64	1,2-Dibromoethane	107	11.696	11.696	(1.324)	672928	100.000	100	
	65	2-Hexanone	43	11.974	11.975	(0.970)	2504655	500.000	509	
*	66	Chlorobenzene-D5	117	12.339	12.340	(1.000)	1428673	50.0000		
	67	Chlorobenzene	112	12.360	12.361	(1.002)	1637119	100.000	97.8	
	152	1-Chlorohexane	91	12.325	12.326	(0.999)	1167703	100.000	99.2	
	68	Ethylbenzene	106	12.396	12.390	(1.005)	1008201	100.000	101	
	69	1,1,1,2-Tetrachloroethane	131	12.439	12.440	(1.008)	664066	100.000	103	
	71	m+p-Xylenes	106	12.582	12.583	(1.020)	2345374	200.000	202	
	72	o-Xylene	106	13.154	13.155	(1.066)	1153699	100.000	106	
	73	Styrene	104	13.233	13.226	(1.072)	2091263	100.000	106	
	74	Bromoform	173	13.269	13.269	(1.075)	486555	100.000	110	
	75	Isopropylbenzene	105	13.590	13.591	(0.866)	2976608	100.000	99.2	
\$	76	P-Bromofluorobenzene	95	13.991	13.992	(1.583)	983874	100.000	95.8	
	77	cis-1,4-Dichloro-2-Butene	53	14.091	14.092	(0.898)	308414	100.000	105	
	78	trans-1,4-Dichloro-2-Butene	53	14.556	14.556	(0.928)	290638	100.000	110	
	79	Bromobenzene	156	14.148	14.149	(0.902)	733170	100.000	101	

Data File: \\Target\_server\gg\chem\gcms-c.i\C111313.b\C4229.D

Report Date:	14-Nov-2013	07:11
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					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
80 N-Propylbenzene	91	14.184	14.185 (0.904)	3751417	100.000	96.3	
81 1,1,2,2-Tetrachloroethane	83	14.291	14.292 (0.911)	989408	100.000	99.2	
82 1,3,5-Trimethylbenzene	105	14.477	14.478 (0.923)	2803941	100.000	99.4	
83 2-Chlorotoluene	91	14.413	14.413 (0.919)	2394339	100.000	100	
84 1,2,3-Trichloropropane	75	14.491	14.492 (0.924)	739224	100.000	93.1	
85 4-Chlorotoluene	91	14.663	14.664 (0.935)	2421203	100.000	97.1	
86 tert-Butylbenzene	119	14.956	14.957 (0.954)	2663746	100.000	102	
87 Pentachloroethane	117	14.985	14.985 (0.955)	640013	100.000	104	
88 1,2,4-Trimethylbenzene	105	15.070	15.064 (0.961)	2807393	100.000	101	
89 P-Isopropyltoluene	119	15.456	15.457 (0.985)	2815838	100.000	102	
90 1,3-Dichlorobenzene	146	15.571	15.572 (0.993)	1299250	100.000	98.4	
* 91 1,4-Dichlorobenzene-D4	152	15.685	15.686 (1.000)	782791	50.0000		
92 1,4-Dichlorobenzene	146	15.714	15.708 (1.002)	1416930	100.000	97.0	
93 N-Butylbenzene	91	16.136	16.137 (1.029)	3174916	100.000	98.9	
94 sec-Butylbenzene	105	15.235	15.229 (0.971)	3445486	100.000	100	
95 1,2-Dichlorobenzene	146	16.393	16.387 (1.045)	1201869	100.000	98.9	
96 1,2-Dibromo-3-Chloropropane	75	17.745	17.745 (1.131)	161332	100.000	103	
97 1,3,5-Trichlorobenzene	180	17.802	17.803 (1.135)	956262	100.000	99.1	
98 Hexachlorobutadiene	225	18.903	18.904 (1.205)	426831	100.000	98.7	
99 1,2,4-Trichlorobenzene	180	18.946	18.947 (1.208)	759879	100.000	97.9	
100 1,2,3-Trimethylbenzene	105	15.750	15.750 (1.004)	2729441	100.000	96.8	
101 Naphthalene	128	19.532	19.533 (1.245)	1754857	100.000	100	
102 1,2,3-Trichlorobenzene	180	19.875	19.869 (1.267)	566651	100.000	104	
103 Methyl Acetate	43	5.132	5.133 (0.628)	661002	100.000	99.3	
104 Methylcyclohexane	83	8.771	8.772 (1.073)	1285193	100.000	112	

Data File: \\target\_server\gg\chem\gcms-c.i\C111313.b\C4230.D

Report Date: 15-Nov-2013 10:04

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C111313.b\C4230.D

Lab Smp Id:  $WG134\overline{3}65\overline{-4}$ Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 11:04

Operator : REC Smp Info : WG134365-4 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030
Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 11:04 Cal File: C4230.D

Als bottle: 3 Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260FULL-LD-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor
5.000 sample purged
Local Compound N Vo

vo Cpnd Variable Local Compound Variable

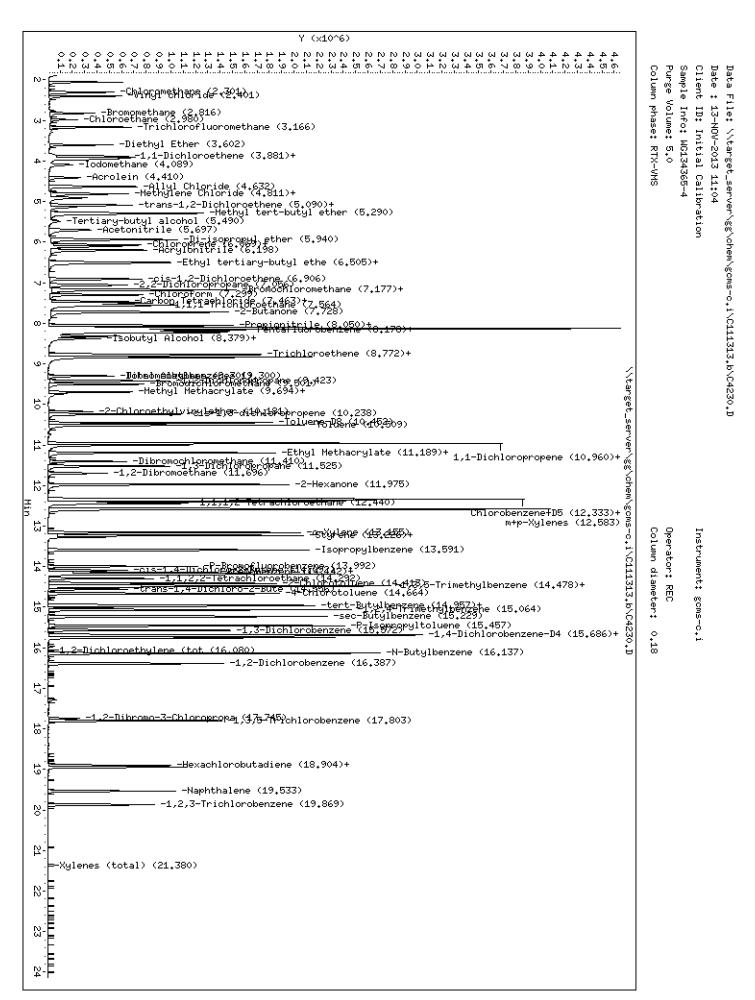
					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.050	2.051 (0.251)	478676	50.0000	49.8	
2 Chloromethane	50	2.301	2.301 (0.281)	611692	50.0000	47.2	
3 Vinyl chloride	62	2.401	2.401 (0.294)	475442	50.0000	49.3	
4 Bromomethane	94	2.815	2.816 (0.344)	236798	50.0000	47.0	
5 Chloroethane	64	2.980	2.980 (0.364)	201812	50.0000	53.2	
6 Trichlorofluoromethane	101	3.166	3.166 (0.387)	507671	50.0000	50.6	
7 Diethyl Ether	59	3.602	3.602 (0.440)	286533	50.0000	48.8	
8 Tertiary-butyl alcohol	59	5.490	5.490 (0.671)	158686	250.000	242	
9 1,1-Dichloroethene	96	3.881	3.881 (0.475)	252947	50.0000	50.2	
10 Carbon Disulfide	76	3.917	3.917 (0.479)	919973	50.0000	47.2	
11 Freon-113	151	3.945	3.946 (0.482)	162356	50.0000	50.9	
12 Iodomethane	142	4.088	4.089 (0.500)	262523	50.0000	53.9	
13 Acrolein	56	4.410	4.410 (0.539)	294982	250.000	245	
14 Methylene Chloride	84	4.810	4.811 (0.588)	403709	50.0000	50.7	
15 Acetone	43	4.903	4.904 (0.600)	570863	250.000	232	
16 Isobutyl Alcohol	43	8.378	8.379 (1.024)	287861	1000.00	1050	
17 trans-1,2-Dichloroethene	96	5.089	5.090 (0.622)	326667	50.0000	49.2	
18 Allyl Chloride	41	4.632	4.632 (0.566)	642164	50.0000	51.2	
19 Methyl tert-butyl ether	73	5.289	5.290 (0.647)	1748498	100.000	100	
20 Acetonitrile	39	5.697	5.697 (0.697)	114416	500.000	475	
21 Di-isopropyl ether	45	5.940	5.940 (0.726)	1278908	50.0000	51.2	
22 Chloroprene	53	6.069	6.069 (0.742)	518391	50.0000	50.1	
23 Propionitrile	54	8.106	8.106 (0.991)	570491	500.000	498	
24 Methacrylonitrile	41	8.128	8.128 (0.994)	2362910	500.000	480	

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4230.D$  Report Date: 15-Nov-2013 10:04

						AMOUN	TS	
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====	======		=======	======	======	========
25 1,1-Dichloroethane	63	6.104	6.105	(0.746)	650306	50.0000	49.8	
26 Acrylonitrile	52	6.197	6.198	(0.758)	614846	250.000	247	
27 Ethyl tertiary-butyl ether	59	6.498	6.498	(0.795)	1019382	50.0000	51.4	
28 Vinyl Acetate	43	6.519	6.520	(0.738)	770847	50.0000	51.8	
29 cis-1,2-Dichloroethene	96	6.912	6.913	(0.845)	369577	50.0000	49.6	
31 Methyl Methacrylate	41	9.694	9.694	(1.097)	347219	50.0000	52.0	
32 2,2-Dichloropropane	77	7.055	7.056	(0.863)	498326	50.0000	50.9	
33 Bromochloromethane	128	7.184	7.185	(0.878)	146500	50.0000	49.3	
34 Chloroform	83	7.299	7.299	(0.892)	650304	50.0000	49.8	
35 Carbon Tetrachloride	117	7.463	7.463	(0.845)	459503	50.0000	52.6	
36 Tetrahydrofuran	42	7.506	7.506	(0.918)	585576	250.000	254	
\$ 37 Dibromofluoromethane	113	7.549	7.549	(0.923)	313308	50.0000	48.9	
38 1,1,1-Trichloroethane	97	7.563	7.564	(0.925)	564667	50.0000	51.2	
39 1,1-Dichloropropene	75	11.002	11.003	(1.245)	540669	50.0000	51.3	
40 2-Butanone	43	7.720	7.721	(0.944)	907933	250.000	256	
41 Benzene	78	8.056	8.057	(0.912)	1421776	50.0000	50.0	
* 42 Pentafluorobenzene	168	8.178	8.178	(1.000)	839803	50.0000		
43 Cyclohexane	56	7.170	7.170	(0.877)	601347	50.0000	52.0	
44 Ethyl Methacrylate	69	11.188	11.189	(1.266)	487783	50.0000	53.1	
\$ 45 1,2-Dichloroethane-D4	65	8.228	8.228	(1.006)	336752	50.0000	48.5	
46 Tertiary-amyl methyl ether	73	8.214	8.214	(1.004)	896440	50.0000	52.3	
47 1,2-Dichloroethane	62	8.314	8.314	(0.941)	417712	50.0000	48.1	
48 Trichloroethene	95	8.786	8.786	(0.994)	338873	50.0000	49.8	
* 49 1,4-Difluorobenzene	114	8.836	8.836	(1.000)	1543992	50.0000		
50 Dibromomethane	93	9.301	9.301	(1.053)	224809	50.0000	47.6	
51 1,2-Dichloropropane	63	9.422	9.423	(1.066)	366636	50.0000	50.0	
52 Bromodichloromethane	83	9.501	9.501	(1.075)	505014	50.0000	49.4	
53 cis-1,3-dichloropropene	75	10.244	10.245	(1.159)	644786	50.0000	51.3	
54 1,4-Dioxane	88	9.737	9.737	(1.102)	86933	1000.00	813	
\$ 55 Toluene-D8	98	10.452	10.452	(1.183)	1131549	50.0000	50.2	
56 2-Chloroethylvinylether	63	10.180	10.181	(1.152)	154805	50.0000	51.9	
57 Toluene	92	10.509	10.509	(1.189)	880760	50.0000	49.8	
58 4-methyl-2-pentanone	43	10.959	10.960	(1.240)	1775256	250.000	259	
59 Tetrachloroethene	164	10.959	10.960	(0.888)	245065	50.0000	49.8	
60 trans-1,3-Dichloropropene	75	11.002	11.003	(1.245)	540669	50.0000	51.3	
61 1,1,2-Trichloroethane	83		11.196		281949	50.0000	48.9	
62 Dibromochloromethane	129		11.410		356177	50.0000	51.9	
63 1,3-Dichloropropane	76		11.525		612218	50.0000	50.5	
64 1,2-Dibromoethane	107		11.696		346304	50.0000	50.3	
65 2-Hexanone	43		11.975		1309972	250.000	262	
* 66 Chlorobenzene-D5	117		12.340		1449989	50.0000		
67 Chlorobenzene	112		12.361		840919	50.0000	49.5	
152 1-Chlorohexane	91		12.326		579431	50.0000	48.5	
68 Ethylbenzene	106		12.390		512309	50.0000	50.5	
69 1,1,1,2-Tetrachloroethane	131		12.440		329128	50.0000	50.5	
71 m+p-Xylenes	106		12.583		1210830	100.000	103	
72 o-Xylene	106		13.155		579188	50.0000	52.4	
73 Styrene	104		13.226		1067173	50.0000	53.1	
74 Bromoform	173		13.269		233992	50.0000	52.0	
75 Isopropylbenzene	105		13.591		1566491	50.0000	51.3	
\$ 76 P-Bromofluorobenzene	95		13.992		514166	50.0000	48.8	
77 cis-1,4-Dichloro-2-Butene	53		14.092		150303	50.0000	50.5	
78 trans-1,4-Dichloro-2-Buter			14.556		138857	50.0000	51.9	
79 Bromobenzene	156	14.148	14.149	(0.902)	357776	50.0000	48.4	

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4230.D$  Report Date: 15-Nov-2013 10:04

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======	====	====		======	======	======	========
80 N-Propylbenzene	91	14.184	14.185 (0.904)	2025375	50.0000	51.1	
81 1,1,2,2-Tetrachloroethane	83	14.291	14.292 (0.911)	497783	50.0000	49.0	
82 1,3,5-Trimethylbenzene	105	14.477	14.478 (0.923)	1480224	50.0000	51.6	
83 2-Chlorotoluene	91	14.413	14.413 (0.919)	1238882	50.0000	51.0	
84 1,2,3-Trichloropropane	75	14.492	14.492 (0.924)	384255	50.0000	47.5	
85 4-Chlorotoluene	91	14.663	14.664 (0.935)	1269797	50.0000	50.0	
86 tert-Butylbenzene	119	14.956	14.957 (0.954)	1350908	50.0000	50.9	
87 Pentachloroethane	117	14.985	14.985 (0.955)	322797	50.0000	51.4	
88 1,2,4-Trimethylbenzene	105	15.064	15.064 (0.960)	1501117	50.0000	52.9	
89 P-Isopropyltoluene	119	15.457	15.457 (0.985)	1470950	50.0000	52.6	
90 1,3-Dichlorobenzene	146	15.571	15.572 (0.993)	653595	50.0000	48.6	
* 91 1,4-Dichlorobenzene-D4	152	15.686	15.686 (1.000)	796751	50.0000		
92 1,4-Dichlorobenzene	146	15.707	15.708 (1.001)	709715	50.0000	47.7	
93 N-Butylbenzene	91	16.136	16.137 (1.029)	1736374	50.0000	53.1	
94 sec-Butylbenzene	105	15.228	15.229 (0.971)	1820017	50.0000	52.0	
95 1,2-Dichlorobenzene	146	16.386	16.387 (1.045)	606181	50.0000	49.0	
96 1,2-Dibromo-3-Chloropropane	75	17.745	17.745 (1.131)	79689	50.0000	49.8	
97 1,3,5-Trichlorobenzene	180	17.802	17.803 (1.135)	475822	50.0000	48.5	
98 Hexachlorobutadiene	225	18.903	18.904 (1.205)	215521	50.0000	49.0	
99 1,2,4-Trichlorobenzene	180	18.946	18.947 (1.208)	372209	50.0000	47.1	
100 1,2,3-Trimethylbenzene	105	15.750	15.750 (1.004)	1463737	50.0000	51.0	
101 Naphthalene	128	19.532	19.533 (1.245)	882984	50.0000	49.6	
102 1,2,3-Trichlorobenzene	180	19.868	19.869 (1.267)	279698	50.0000	45.4	
103 Methyl Acetate	43	5.132	5.133 (0.628)	339043	50.0000	49.8	
104 Methylcyclohexane	83	8.771	8.772 (1.073)	614955	50.0000	52.1	



Data File: \Target\_server\gg\chem\gcms-c.i\C111313.b\C4231.D

Report Date: 14-Nov-2013 07:11

# Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gcms-c.i\C111313.b\C4231.D

Lab Smp Id: WG134365-3 Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 11:35

Operator : REC Smp Info : WG134365-3 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030
Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 11:35 Cal File: C4231.D

Als bottle: 4 Calibration Sample, Level: 3

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260FULL-LD-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor
5.000 sample purged
Local Compound N

Vo Cpnd Variable Local Compound Variable

			AMOUNTS							
	QUANT SIG				CAL-AMT	ON-COL				
Compounds	MASS	RT	EXP RT REL R	T RESPONSE	( ug/l)	( ug/l)	REVIEW CODE			
	====	====		== ======	======	======	========			
1 Dichlorodifluoromethane	85	2.051	2.051 (0.251)	203088	20.0000	21.0				
2 Chloromethane	50	2.301	2.301 (0.281)	263637	20.0000	20.3				
3 Vinyl chloride	62	2.401	2.401 (0.294)	202903	20.0000	21.0				
4 Bromomethane	94	2.816	2.816 (0.344)	98562	20.0000	19.6				
5 Chloroethane	64	2.980	2.980 (0.364)	91976	20.0000	18.0				
6 Trichlorofluoromethane	101	3.166	3.166 (0.387)	219568	20.0000	21.9				
7 Diethyl Ether	59	3.602	3.602 (0.440)	118148	20.0000	20.1				
8 Tertiary-butyl alcohol	59	5.490	5.490 (0.671)	60065	100.000	94.4				
9 1,1-Dichloroethene	96	3.881	3.881 (0.475)	100686	20.0000	20.0				
10 Carbon Disulfide	76	3.917	3.917 (0.479)	352196	20.0000	18.1				
11 Freon-113	151	3.945	3.946 (0.482)	70853	20.0000	22.2				
12 Iodomethane	142	4.088	4.089 (0.500)	94381	20.0000	19.4				
13 Acrolein	56	4.410	4.410 (0.539)	120511	100.000	100				
14 Methylene Chloride	84	4.811	4.811 (0.588)	190200	20.0000	21.7				
15 Acetone	43	4.904	4.904 (0.600)	243685	100.000	99.2				
16 Isobutyl Alcohol	43	8.379	8.379 (1.024)	103567	400.000	377				
17 trans-1,2-Dichloroethene	96	5.089	5.090 (0.622)	135537	20.0000	20.4				
18 Allyl Chloride	41	4.632	4.632 (0.566)	269785	20.0000	21.5				
19 Methyl tert-butyl ether	73	5.290	5.290 (0.647)	738986	40.0000	42.5				
20 Acetonitrile	39	5.697	5.697 (0.697)	52544	200.000	218				
21 Di-isopropyl ether	45	5.940	5.940 (0.726)	530606	20.0000	21.3				
22 Chloroprene	53	6.069	6.069 (0.742)	215743	20.0000	20.9				
23 Propionitrile	54	8.100	8.106 (0.990)	234294	200.000	204				
24 Methacrylonitrile	41	8.128	8.128 (0.994)	1062507	200.000	192				

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4231.D$  Report Date: 14-Nov-2013 07:11

							AMOUN	TS	
		QUANT SIG					CAL-AMT	ON-COL	
Compo	ounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=====	=======================================	====	====		: ======	======	======	======	========
25	1,1-Dichloroethane	63	6.105	6.105	(0.746)	266759	20.0000	20.4	
26	Acrylonitrile	52	6.198	6.198	(0.758)	255182	100.000	102	
27	Ethyl tertiary-butyl ether	59	6.498	6.498	(0.795)	407989	20.0000	20.6	
28	Vinyl Acetate	43	6.519	6.520	(0.738)	307649	20.0000	20.8	
29	cis-1,2-Dichloroethene	96	6.913	6.913	(0.845)	150645	20.0000	20.2	
31	Methyl Methacrylate	41	9.694	9.694	(1.097)	134028	20.0000	20.2	
32	2,2-Dichloropropane	77	7.056	7.056	(0.863)	200581	20.0000	20.5	
33	Bromochloromethane	128	7.184	7.185	(0.878)	59993	20.0000	20.2	
34	Chloroform	83	7.299	7.299	(0.892)	268083	20.0000	20.5	
35	Carbon Tetrachloride	117	7.463	7.463	(0.845)	181564	20.0000	21.0	
36	Tetrahydrofuran	42	7.506	7.506	(0.918)	228886	100.000	99.2	
\$ 37	Dibromofluoromethane	113	7.549	7.549	(0.923)	127274	20.0000	19.9	
38	1,1,1-Trichloroethane	97	7.563	7.564	(0.925)	225107	20.0000	20.4	
39	1,1-Dichloropropene	75	11.003	11.003	(1.245)	220805	20.0000	21.1	
40	2-Butanone	43	7.721	7.721	(0.944)	376959	100.000	106	
41	Benzene	78	8.050	8.057	(0.911)	578548	20.0000	20.5	
* 42	Pentafluorobenzene	168	8.178	8.178	(1.000)	839573	50.0000		
43	Cyclohexane	56	7.170	7.170	(0.877)	251470	20.0000	21.7	
44	Ethyl Methacrylate	69	11.189		(1.266)	196445	20.0000	21.6	
	1,2-Dichloroethane-D4	65	8.228	8.228	(1.006)	137618	20.0000	19.8	
46	Tertiary-amyl methyl ether	73	8.214		(1.004)	355551	20.0000	20.8	
	1,2-Dichloroethane	62	8.321		(0.942)	173979	20.0000	20.2	
	Trichloroethene	95	8.786		(0.994)	136725	20.0000	20.2	
* 49	1,4-Difluorobenzene	114	8.836		(1.000)	1531776	50.0000		
	Dibromomethane	93	9.301		(1.053)	90662	20.0000	19.4	
	1,2-Dichloropropane	63	9.422		(1.066)	150301	20.0000	20.7	
	Bromodichloromethane	83	9.501		(1.075)	204152	20.0000	20.2	
	cis-1,3-dichloropropene	75	10.245		(1.159)	261766	20.0000	21.0	
	1,4-Dioxane	88	9.744		(1.103)	36796	400.000	321	
	Toluene-D8	98	10.452	10.452		467111	20.0000	20.9	
	2-Chloroethylvinylether	63	10.180	10.181		57356	20.0000	19.4	
	Toluene	92	10.509	10.509		365040	20.0000	20.8	
58	4-methyl-2-pentanone	43	10.960	10.960		754312	100.000	111	
	Tetrachloroethene	164	10.960	10.960		97742	20.0000	19.9	
	trans-1,3-Dichloropropene	75		11.003		220805	20.0000	21.1	
	1,1,2-Trichloroethane	83		11.196		117543	20.0000	20.6	
	Dibromochloromethane	129		11.410		145844	20.0000	21.3	
	1,3-Dichloropropane	76		11.525		258450	20.0000	21.4	
	1,2-Dibromoethane	107		11.696		137276	20.0000	20.1	
	2-Hexanone	43		11.975		551636	100.000	111	
	Chlorobenzene-D5	117		12.340		1447153	50.0000		
	Chlorobenzene	112		12.361		350989	20.0000	20.7	
	2 1-Chlorohexane	91		12.326		236891	20.0000	19.9	
	Ethylbenzene	106		12.390		211658	20.0000	20.9	
	1,1,1,2-Tetrachloroethane	131		12.440		130668	20.0000	20.1	
	m+p-Xylenes	106		12.583		497893	40.0000	42.4	
	o-Xylene	106		13.155		237181	20.0000	21.5	
	Styrene	104		13.226		430311	20.0000	21.4	
	Bromoform	173		13.269		91125	20.0000	20.3	
	Isopropylbenzene	105		13.591		642640	20.0000	21.3	
	P-Bromofluorobenzene	95		13.992		213061	20.0000	20.4	
	cis-1,4-Dichloro-2-Butene	53		14.092		59770	20.0000	20.4	
	trans-1,4-Dichloro-2-Butene	53		14.556		54060	20.0000	20.5	
	Bromobenzene	156		14.149		141233	20.0000	19.4	
, ,					/				

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4231.D$  Report Date: 14-Nov-2013 07:11

104 Methylcyclohexane

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
80 N-Propylbenzene	91	14.184	14.185 (0.904)	867504	20.0000	22.2	
81 1,1,2,2-Tetrachloroethane	83	14.292	14.292 (0.911)	203756	20.0000	20.4	
82 1,3,5-Trimethylbenzene	105	14.478	14.478 (0.923)	616128	20.0000	21.8	
83 2-Chlorotoluene	91	14.413	14.413 (0.919)	509127	20.0000	21.3	
84 1,2,3-Trichloropropane	75	14.492	14.492 (0.924)	164211	20.0000	20.6	
85 4-Chlorotoluene	91	14.663	14.664 (0.935)	526317	20.0000	21.0	
86 tert-Butylbenzene	119	14.957	14.957 (0.954)	551803	20.0000	21.1	
87 Pentachloroethane	117	14.985	14.985 (0.955)	125800	20.0000	20.3	
88 1,2,4-Trimethylbenzene	105	15.064	15.064 (0.960)	611751	20.0000	21.9	
89 P-Isopropyltoluene	119	15.457	15.457 (0.985)	603706	20.0000	21.9	
90 1,3-Dichlorobenzene	146	15.572	15.572 (0.993)	264457	20.0000	20.0	
* 91 1,4-Dichlorobenzene-D4	152	15.686	15.686 (1.000)	785328	50.0000		
92 1,4-Dichlorobenzene	146	15.707	15.708 (1.001)	291974	20.0000	19.9	
93 N-Butylbenzene	91	16.136	16.137 (1.029)	715907	20.0000	22.2	
94 sec-Butylbenzene	105	15.228	15.229 (0.971)	757091	20.0000	22.0	
95 1,2-Dichlorobenzene	146	16.387	16.387 (1.045)	250421	20.0000	20.6	
96 1,2-Dibromo-3-Chloropropane	75	17.745	17.745 (1.131)	31763	20.0000	20.1	
97 1,3,5-Trichlorobenzene	180	17.802	17.803 (1.135)	191513	20.0000	19.8	
98 Hexachlorobutadiene	225	18.904	18.904 (1.205)	83590	20.0000	19.3	
99 1,2,4-Trichlorobenzene	180	18.946	18.947 (1.208)	151028	20.0000	19.4	
100 1,2,3-Trimethylbenzene	105	15.750	15.750 (1.004)	602566	20.0000	21.3	
101 Naphthalene	128	19.533	19.533 (1.245)	364582	20.0000	20.8	
102 1,2,3-Trichlorobenzene	180	19.869	19.869 (1.267)	115932	20.0000	18.3	
103 Methyl Acetate	43	5.140	5.133 (0.628)	132850	20.0000	19.5	

83 8.772 8.772 (1.073) 252286 20.0000 21.4

Data File: \Target\_server\gg\chem\gcms-c.i\C111313.b\C4232.D

Report Date: 14-Nov-2013 07:11

# Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gcms-c.i\C111313.b\C4232.D

Lab Smp Id: WG134365-2 Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 12:07

Operator : REC Smp Info : WG134365-2 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030
Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:07 Cal File: C4232.D

Als bottle: 5 Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260FULL-LD-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor
5.000 sample purged
Local Compound N

Vo Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		=======	======	======	========
1 Dichlorodifluoromethane	85	2.052	2.051 (0.251)	44589	5.00000	4.5	
2 Chloromethane	50	2.295	2.301 (0.281)	72806	5.00000	5.8	
3 Vinyl chloride	62	2.403	2.401 (0.294)	52632	5.00000	5.6	
4 Bromomethane	94	2.817	2.816 (0.344)	25538	5.00000	5.2	
5 Chloroethane	64	2.982	2.980 (0.365)	22984	5.00000	4.1	
6 Trichlorofluoromethane	101	3.168	3.166 (0.387)	51477	5.00000	5.3	
7 Diethyl Ether	59	3.604	3.602 (0.441)	31322	5.00000	5.5	
8 Tertiary-butyl alcohol	59	5.499	5.490 (0.672)	16611	25.0000	30.1	
9 1,1-Dichloroethene	96	3.883	3.881 (0.475)	24774	5.00000	5.1	
10 Carbon Disulfide	76	3.918	3.917 (0.479)	96894	5.00000	5.1	
11 Freon-113	151	3.954	3.946 (0.483)	15692	5.00000	5.1	
12 Iodomethane	142	4.090	4.089 (0.500)	19761	5.00000	4.2	
13 Acrolein	56	4.412	4.410 (0.539)	28478	25.0000	24.4	
14 Methylene Chloride	84	4.812	4.811 (0.588)	69140	5.00000	5.6	
15 Acetone	43	4.912	4.904 (0.601)	59859	25.0000	25.1	
16 Isobutyl Alcohol	43	8.387	8.379 (1.025)	24576	100.000	92.2	
17 trans-1,2-Dichloroethene	96	5.084	5.090 (0.622)	30976	5.00000	4.8	
18 Allyl Chloride	41	4.626	4.632 (0.566)	64992	5.00000	5.3	
19 Methyl tert-butyl ether	73	5.298	5.290 (0.648)	170742	10.0000	10.1	
20 Acetonitrile	39	5.706	5.697 (0.698)	9528	50.0000	40.7	
21 Di-isopropyl ether	45	5.942	5.940 (0.726)	123151	5.00000	5.1	
22 Chloroprene	53	6.071	6.069 (0.742)	52829	5.00000	5.3	
23 Propionitrile	54	8.108	8.106 (0.991)	60988	50.0000	54.8	
24 Methacrylonitrile	41	8.130	8.128 (0.994)	274360	50.0000	51.0	

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4232.D$  Report Date: 14-Nov-2013 07:11

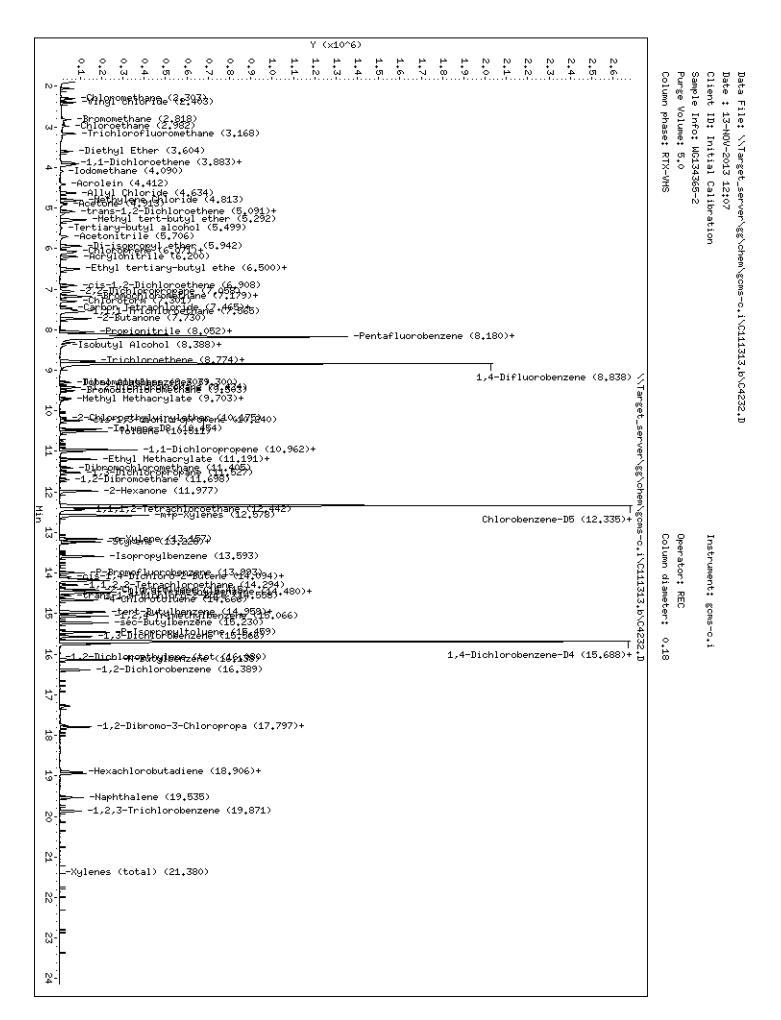
			AMOUNTS						
		QUANT SIG				CAL-AMT	ON-COL		
Comp	pounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/l)	( ug/l)	REVIEW CODE	
		====				======	======	========	
	25 1,1-Dichloroethane	63	6.106	6.105 (0.747)	68074	5.00000	5.4		
	26 Acrylonitrile	52	6.199	6.198 (0.758)	64733	25.0000	26.8		
	27 Ethyl tertiary-butyl ether	59	6.500	6.498 (0.795)	92232	5.00000	4.8		
	28 Vinyl Acetate	43	6.528 6.907	6.520 (0.739)	68293	5.00000	4.8		
	29 cis-1,2-Dichloroethene	96		6.913 (0.844)	36618	5.00000	5.0		
	31 Methyl Methacrylate	41 77	9.703	9.694 (1.098)	30321	5.00000	4.8		
	32 2,2-Dichloropropane 33 Bromochloromethane		7.057	7.056 (0.863)	46727	5.00000	4.9 4.6		
	34 Chloroform	128 83	7.186 7.300	7.185 (0.879) 7.299 (0.892)	13347 65631	5.00000 5.00000	5.2		
	35 Carbon Tetrachloride	117	7.465	7.463 (0.845)	40167	5.00000	4.8		
	36 Tetrahydrofuran	42	7.405	7.506 (0.918)	58185	25.0000	26.0		
	37 Dibromofluoromethane	113	7.544	7.549 (0.922)	30652	5.00000	4.9		
	38 1,1,1-Trichloroethane	97	7.544	7.549 (0.922)	55817	5.00000	5.2		
	39 1,1-Dichloropropene	75	11.004	11.003 (1.245)	49512	5.00000	4.9		
	40 2-Butanone	43	7.722	7.721 (0.944)	86477	25.0000	25.1		
	11 Benzene	78	8.051	8.057 (0.911)	143618	5.00000	5.3		
	12 Pentafluorobenzene	168	8.180	8.178 (1.000)	815606	50.0000	5.5		
	43 Cyclohexane	56	7.179	7.170 (0.878)	53984	5.00000	4.8		
	44 Ethyl Methacrylate	69	11.190	11.189 (1.266)	42969	5.00000	4.9		
	45 1,2-Dichloroethane-D4	65	8.230	8.228 (1.006)	36948	5.00000	5.5		
	46 Tertiary-amyl methyl ether	73	8.216	8.214 (1.004)	79108	5.00000	4.8		
	47 1,2-Dichloroethane	62	8.316	8.314 (0.941)	42957	5.00000	5.2		
	48 Trichloroethene	95	8.788	8.786 (0.994)	33172	5.00000	5.1		
	49 1,4-Difluorobenzene	114	8.838	8.836 (1.000)	1475429	50.0000	3.1		
	50 Dibromomethane	93	9.302	9.301 (1.053)	23130	5.00000	5.1		
	51 1,2-Dichloropropane	63	9.424	9.423 (1.066)	36009	5.00000	5.1		
	52 Bromodichloromethane	83	9.503	9.501 (1.075)	48653	5.00000	5.0		
	53 cis-1,3-dichloropropene	75	10.246	10.245 (1.159)	57296	5.00000	4.8		
	54 1,4-Dioxane	88	9.746	9.737 (1.103)	10900	100.000	128		
	55 Toluene-D8	98	10.454	10.452 (1.183)	115351	5.00000	5.4		
	56 2-Chloroethylvinylether	63	10.175	10.181 (1.151)	13205	5.00000	4.6		
	77 Toluene	92		10.509 (1.189)	90650	5.00000	5.4		
	58 4-methyl-2-pentanone	43		10.960 (1.240)	183421	25.0000	28.0		
	59 Tetrachloroethene	164		10.960 (0.888)	24981	5.00000	5.2		
6	50 trans-1,3-Dichloropropene	75		11.003 (1.245)	49512	5.00000	4.9		
	51 1,1,2-Trichloroethane	83	11.190	11.196 (1.266)	28095	5.00000	5.1		
	52 Dibromochloromethane	129		11.410 (0.925)	31739	5.00000	4.7		
6	33 1,3-Dichloropropane	76	11.526	11.525 (0.934)	58165	5.00000	4.9		
	54 1,2-Dibromoethane	107		11.696 (1.323)	32747	5.00000	5.0		
	55 2-Hexanone	43	11.977	11.975 (0.971)	131783	25.0000	26.8		
* 6	66 Chlorobenzene-D5	117	12.334	12.340 (1.000)	1430298	50.0000			
6	7 Chlorobenzene	112	12.363	12.361 (1.002)	87137	5.00000	5.2		
15	52 1-Chlorohexane	91	12.327	12.326 (0.999)	58875	5.00000	5.0		
6	8 Ethylbenzene	106	12.391	12.390 (1.005)	52597	5.00000	5.3		
6	59 1,1,1,2-Tetrachloroethane	131	12.441	12.440 (1.009)	30342	5.00000	4.7		
7	71 m+p-Xylenes	106	12.584	12.583 (1.020)	124006	10.0000	10.7		
7	72 o-Xylene	106	13.156	13.155 (1.067)	55472	5.00000	5.1		
7	73 Styrene	104	13.228	13.226 (1.072)	101531	5.00000	5.1		
7	74 Bromoform	173	13.271	13.269 (1.076)	19424	5.00000	4.4		
7	75 Isopropylbenzene	105	13.593	13.591 (0.866)	160290	5.00000	5.6		
\$ 7	76 P-Bromofluorobenzene	95	13.993	13.992 (1.583)	50795	5.00000	5.0		
7	77 cis-1,4-Dichloro-2-Butene	53	14.093	14.092 (0.898)	14062	5.00000	5.1		
7	78 trans-1,4-Dichloro-2-Butene	53	14.558	14.556 (0.928)	12127	5.00000	4.9		
	70 D	156	14 142	14 140 (0 000)	24761	F 00000	г о		

156 14.143 14.149 (0.902) 34761 5.00000

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Report	Date:	14-Nov-2013	07:11

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
80 N-Propylbenzene	91	14.186	14.185 (0.904)	211162	5.00000	5.7	
81 1,1,2,2-Tetrachloroethane	83	14.293	14.292 (0.911)	48678	5.00000	5.1	
82 1,3,5-Trimethylbenzene	105	14.472	14.478 (0.923)	150265	5.00000	5.6	
83 2-Chlorotoluene	91	14.415	14.413 (0.919)	125310	5.00000	5.5	
84 1,2,3-Trichloropropane	75	14.493	14.492 (0.924)	41636	5.00000	5.5	
85 4-Chlorotoluene	91	14.665	14.664 (0.935)	125560	5.00000	5.3	
86 tert-Butylbenzene	119	14.958	14.957 (0.954)	133351	5.00000	5.4	
87 Pentachloroethane	117	14.987	14.985 (0.955)	31293	5.00000	5.3	
88 1,2,4-Trimethylbenzene	105	15.065	15.064 (0.960)	145264	5.00000	5.5	
89 P-Isopropyltoluene	119	15.459	15.457 (0.985)	145204	5.00000	5.6	
90 1,3-Dichlorobenzene	146	15.573	15.572 (0.993)	65697	5.00000	5.2	
* 91 1,4-Dichlorobenzene-D4	152	15.688	15.686 (1.000)	742193	50.0000		
92 1,4-Dichlorobenzene	146	15.709	15.708 (1.001)	71004	5.00000	5.1	
93 N-Butylbenzene	91	16.138	16.137 (1.029)	171119	5.00000	5.6	
94 sec-Butylbenzene	105	15.230	15.229 (0.971)	182313	5.00000	5.6	
95 1,2-Dichlorobenzene	146	16.388	16.387 (1.045)	59000	5.00000	5.1	
96 1,2-Dibromo-3-Chloropropane	75	17.747	17.745 (1.131)	7821	5.00000	5.2	
97 1,3,5-Trichlorobenzene	180	17.797	17.803 (1.134)	46935	5.00000	5.1	
98 Hexachlorobutadiene	225	18.905	18.904 (1.205)	22710	5.00000	5.5	
99 1,2,4-Trichlorobenzene	180	18.941	18.947 (1.207)	37172	5.00000	5.0	
100 1,2,3-Trimethylbenzene	105	15.752	15.750 (1.004)	147885	5.00000	5.5	
101 Naphthalene	128	19.534	19.533 (1.245)	93094	5.00000	5.6	
102 1,2,3-Trichlorobenzene	180	19.870	19.869 (1.267)	32434	5.00000	5.9	
103 Methyl Acetate	43	5.141	5.133 (0.629)	33661	5.00000	5.1	
104 Methylcyclohexane	83	8.773	8.772 (1.073)	55823	5.00000	4.9	



Data File: \Target\_server\gg\chem\gcms-c.i\C111313.b\C4233.D

Report Date: 14-Nov-2013 07:11

# Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gcms-c.i\C111313.b\C4233.D

Lab Smp Id: WG134365-1 Client Smp ID: Initial Calibration

Inj Date : 13-NOV-2013 12:38

Operator : REC Smp Info : WG134365-1 Inst ID: gcms-c.i

Misc Info :

Comment : SW846 5030

Method : \Target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 6 Calibration Sample, Level: 1

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
VO	5.000	sample bardea

Local Compound Variable Cpnd Variable

. 0	
12:30 pm, Dec 02, 2013	}

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.053	2.051 (0.251)	5606	1.00000	0.33(a)	
2 Chloromethane	50	2.296	2.301 (0.281)	13856	1.00000	1.1	
3 Vinyl chloride	62	2.404	2.401 (0.294)	8425	1.00000	0.92(a)	
4 Bromomethane	94	2.818	2.816 (0.345)	5218	1.00000	1.1	
5 Chloroethane	64	2.983	2.980 (0.365)	6067	1.00000	1.6	
6 Trichlorofluoromethane	101	3.169	3.166 (0.387)	6711	1.00000	0.70(a)	
7 Diethyl Ether	59	3.605	3.602 (0.441)	5344	1.00000	0.96(a)	
8 Tertiary-butyl alcohol	59	5.492	5.490 (0.671)	5153	5.00000	12.6(M)	м9
9 1,1-Dichloroethene	96	3.884	3.881 (0.475)	4847	1.00000	1.0	
10 Carbon Disulfide	76	3.912	3.917 (0.478)	23792	1.00000	1.3	
11 Freon-113	151	3.941	3.946 (0.482)	2225	1.00000	0.73(aM)	М9
12 Iodomethane	142	4.098	4.089 (0.501)	3772	1.00000	0.81(aM)	M6
13 Acrolein	56	4.420	4.410 (0.540)	5835	5.00000	5.1	
14 Methylene Chloride	84	4.813	4.811 (0.588)	40543	1.00000	1.7(a)	
15 Acetone	43	4.913	4.904 (0.601)	13512	5.00000	5.8(M)	м9
16 Isobutyl Alcohol	43	8.395	8.379 (1.026)	4374	20.0000	16.8(aM)	М9
17 trans-1,2-Dichloroethene	96	5.085	5.090 (0.622)	6944	1.00000	1.1	
18 Allyl Chloride	41	4.634	4.632 (0.567)	10984	1.00000	0.92(a)	
19 Methyl tert-butyl ether	73	5.292	5.290 (0.647)	30537	2.00000	1.8	
20 Acetonitrile	39	5.707	5.697 (0.698)	2642	10.0000	11.5(aM)	м9
21 Di-isopropyl ether	45	5.936	5.940 (0.726)	21731	1.00000	0.92(a)	
22 Chloroprene	53	6.072	6.069 (0.742)	8657	1.00000	0.88(a)	
23 Propionitrile	54	8.109	8.106 (0.991)	10296	10.0000	9.4(a)	
24 Methacrylonitrile	41	8.131	8.128 (0.994)	49044	10.0000	14.1	

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4233.D$  Report Date: 14-Nov-2013 07:11

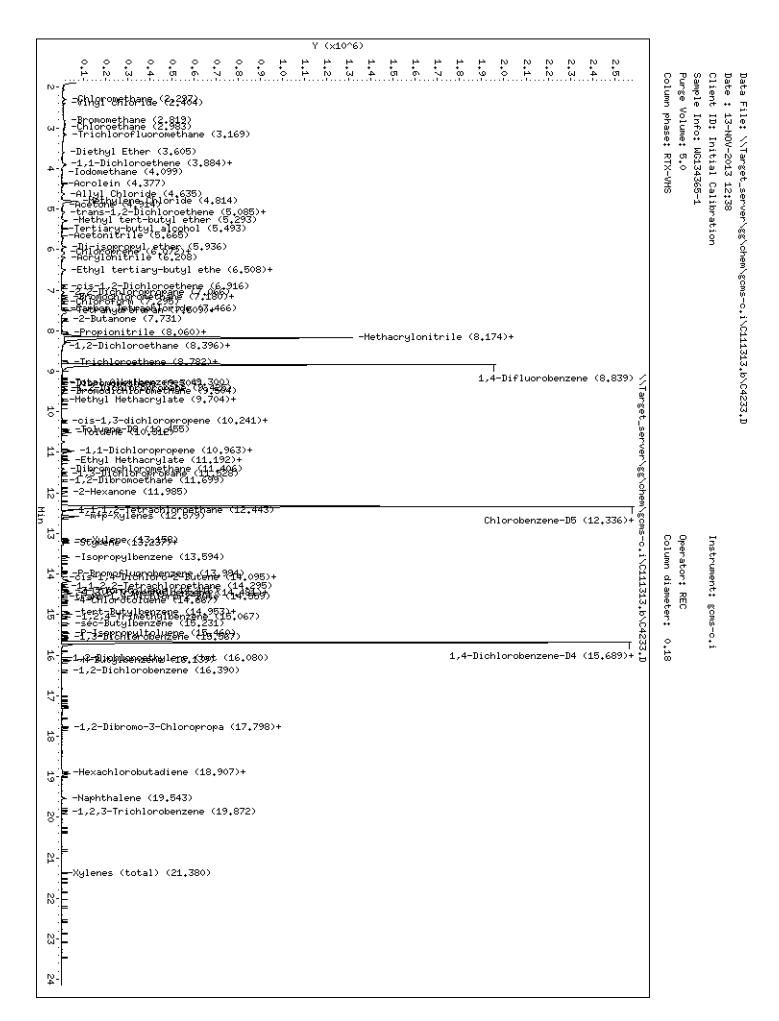
							AMOUN	ITS	
		QUANT SIG					CAL-AMT	ON-COL	
Com	pounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
===:		====	====	======	: ======	======	======	======	========
	25 1,1-Dichloroethane	63	6.107	6.105	(0.747)	12116	1.00000	0.98(a)	
:	26 Acrylonitrile	52	6.207	6.198	(0.759)	11220	5.00000	4.7(a)	
:	27 Ethyl tertiary-butyl ether	59	6.508	6.498	(0.795)	16352	1.00000	0.87(a)	
:	28 Vinyl Acetate	43	6.536	6.520	(0.740)	12025	1.00000	0.86(aM)	М9
:	29 cis-1,2-Dichloroethene	96	6.915	6.913	(0.845)	7220	1.00000	1.0	
M .	30 1,2-Dichloroethylene (total)	96				14164	1.00000	(a)	
:	31 Methyl Methacrylate	41	9.704	9.694	(1.098)	5209	1.00000	0.83(a)	
	32 2,2-Dichloropropane	77	7.065	7.056	(0.864)	7841	1.00000	0.84(aM)	Мб
	33 Bromochloromethane	128	7.187	7.185	(0.879)	3176	1.00000	1.1	
:	34 Chloroform	83	7.301	7.299	(0.893)	12460	1.00000	1.0	
:	35 Carbon Tetrachloride	117	7.473	7.463	(0.845)	6554	1.00000	0.80(a)	
:	36 Tetrahydrofuran	42	7.516	7.506	(0.919)	10889	5.00000	5.0	
\$ :	37 Dibromofluoromethane	113	7.545	7.549	(0.922)	6670	1.00000	1.1	
:	38 1,1,1-Trichloroethane	97	7.566	7.564	(0.925)	9428	1.00000	0.90(a)	
:	39 1,1-Dichloropropene	75	11.005	11.003	(1.245)	8281	1.00000	0.84(a)	
	40 2-Butanone	43	7.738	7.721	(0.946)	15763	5.00000	4.7(aM)	М9
	41 Benzene	78	8.059	8.057	(0.912)	28740	1.00000	1.1	
* .	42 Pentafluorobenzene	168	8.181	8.178	(1.000)	797954	50.0000		
	43 Cyclohexane	56	7.180	7.170	(0.878)	9347	1.00000	0.85(a)	
	44 Ethyl Methacrylate	69	11.198	11.189	(1.267)	6519	1.00000	0.76(a)	
\$ 4	45 1,2-Dichloroethane-D4	65	8.231	8.228	(1.006)	6902	1.00000	1.0	
	46 Tertiary-amyl methyl ether	73	8.224	8.214	(1.005)	14150	1.00000	0.87(a)	
	47 1,2-Dichloroethane	62	8.317	8.314	(0.941)	8292	1.00000	1.0	11AS
	48 Trichloroethene	95	8.796	8.786	(0.995)	5945	1.00000	0.93(a)	WINZ
* .	49 1,4-Difluorobenzene	114	8.839	8.836	(1.000)	1446880	50.0000		12:31 pm, Dec 02, 2013
!	50 Dibromomethane	93	9.303	9.301	(1.053)	4982	1.00000	1.1	
!	51 1,2-Dichloropropane	63	9.425	9.423	(1.066)	6293	1.00000	0.92(aM)	Мб
	52 Bromodichloromethane	83	9.504	9.501	(1.075)	9439	1.00000	0.99(a)	
!	53 cis-1,3-dichloropropene	75	10.240		(1.159)	11054	1.00000	0.94(a)	
	54 1,4-Dioxane	88	9.754	9.737	(1.104)	1132	20.0000	62.3	
\$ !	55 Toluene-D8	98	10.455	10.452	(1.183)	22240	1.00000	1.0	
	56 2-Chloroethylvinylether	63	10.176		(1.151)	2220	1.00000	0.79(a)	
	57 Toluene	92	10.512	10.509	(1.189)	16660	1.00000	1.0	
	58 4-methyl-2-pentanone	43	10.962		(1.240)	30242	5.00000	4.7(a)	
	59 Tetrachloroethene	164	10.948		(0.888)	4039	1.00000	0.85(a)	
	60 trans-1,3-Dichloropropene	75		11.003		8281	1.00000	0.84(a)	
	61 1,1,2-Trichloroethane	83		11.196		5465	1.00000	1.0	
	62 Dibromochloromethane	129	11.406		(0.925)	5308	1.00000	0.80(a)	
	63 1,3-Dichloropropane	76		11.525		11782	1.00000	1.0	
	64 1,2-Dibromoethane	107		11.696		6243	1.00000	0.97(aM)	М6
	65 2-Hexanone	43		11.975		21096	5.00000	4.4(a)	
	66 Chlorobenzene-D5	117		12.340		1403208	50.0000	1.1(4)	
	67 Chlorobenzene	112		12.361		17204	1.00000	1.0	
	52 1-Chlorohexane	91		12.326		13039	1.00000	1.1	
	68 Ethylbenzene	106	12.320		(1.005)	8838	1.00000	0.90(a)	
	69 1,1,1,2-Tetrachloroethane	131		12.440		6080	1.00000	0.96(a)	
	70 Xylenes (total)	106	12.772	12.110	(1.002)	29560	5.00000	0.96(a) (a)	
	71 m+p-Xylenes	106	10 505	12.583	(1 020)	29560	2.00000	1.8(a)	
	72 o-Xylene	106		13.155		8473	1.00000	0.79(a)	
	73 Styrene	104		13.226		15926	1.00000	0.82(a)	м6
	74 Bromoform	173		13.269		3648	1.00000	0.84(aM)	М6
	75 Isopropylbenzene	105		13.591		26305	1.00000	0.93(a)	
	76 P-Bromofluorobenzene	95		13.992		10768	1.00000	1.1	
	77 cis-1,4-Dichloro-2-Butene	53	14.094	14.092	(0.898)	2272	1.00000	0.83(a)	

Data File:  $\Target_server\g\chem\gcms-c.i\C111313.b\C4233.D$  Report Date: 14-Nov-2013 07:11

Compounds			AMOUNTS					
78 trans-1,4-Dichloro-2-Butene 53 14.559 14.556 (0.928) 1947 1.00000 0.79(a) 79 Bromobenzene 156 14.144 14.149 (0.902) 6957 1.00000 1.0 80 N-Propylbenzene 91 14.187 14.185 (0.904) 36443 1.00000 1.00 81 1,1,2,2-Tetrachloroethane 83 14.294 14.292 (0.911) 9779 1.00000 1.0 82 1,3,5-Trimethylbenzene 91 14.416 14.413 (0.923) 24314 1.00000 0.92(a) 83 2-Chlorotoluene 91 14.416 14.413 (0.919) 20821 1.00000 0.93(a) 84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 0.93(a) 86 1,2,3-Trimethylbenzene 119 14.952 14.957 (0.953) 25015 1.00000 1.1 86 tetrt-Butylbenzene 119 14.952 14.957 (0.953) 25015 1.00000 0.90(a) 87 Pentachloroethane 117 14.95 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 0.92(a) 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15466 1.00000 0.92(a) 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 (1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.1315) 9811 1.00000 1.0 97 1.3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.0 100 1,2,3-Trinchlorobenzene 180 19.874 19.530 (1.208) 8562 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)		QUANT SIG				CAL-AMT	ON-COL	
78 trans-1,4-Dichloro-2-Butene         53         14.559         14.556         (0.928)         1947         1.00000         0.79(a)           79 Bromobenzene         156         14.144         14.149         (0.902)         6957         1.00000         1.0           80 N-Propylbenzene         91         14.187         14.185         (0.904)         36443         1.00000         1.0           81 1,1,2,2-Tetrachlorocthane         83         14.294         14.292         (0.911)         9779         1.00000         1.0           82 1,3,5-Trimethylbenzene         105         14.473         14.478         (0.923)         24314         1.00000         0.92(a)           83 2-Chlorotoluene         91         14.416         14.413         (0.919)         20821         1.00000         0.93(a)           84 1,2,3-Trichloropropane         75         14.494         14.920         (0.924)         8160         1.00000         1.1           85 4-Chlorotoluene         91         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.666         14.606         14.606         14.606         14.606         14.955         <	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
79 Bromobenzene   156		====	====		======	======	======	========
80 N-Propylbenzene 91 14.187 14.185 (0.904) 36443 1.0000 1.00 81 1,1,2,2-Tetrachloroethane 83 14.294 14.292 (0.911) 9779 1.00000 1.0 82 1,3,5-Trimethylbenzene 105 14.473 14.478 (0.923) 24314 1.00000 0.92(a) 83 2-Chlorotoluene 91 14.416 14.413 (0.919) 20821 1.00000 0.93(a) 84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.935) 25015 1.00000 0.90(a) 87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0 91 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.0 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 16 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 1.0 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4812 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.206) 16.260 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.206) 16.57 1.00000 1.0 101 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	78 trans-1,4-Dichloro-2-Butene	53	14.559	14.556 (0.928)	1947	1.00000	0.79(a)	
81 1,1,2,2-Tetrachloroethane 83 14.294 14.292 (0.911) 9779 1.00000 1.0 82 1,3,5-Trimethylbenzene 105 14.473 14.478 (0.923) 24314 1.00000 0.92(a) 83 2-Chlorotoluene 91 14.416 14.413 (0.919) 20821 1.00000 0.93(a) 84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.953) 22094 1.00000 0.90(a) 87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 (15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.331 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 166 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.2 100 1,2,3-Trimethylbenzene 180 18.947 (1.208) 8562 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (0.629) 6552 1.00000 1.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8553 1.00000 0.76(a)	79 Bromobenzene	156	14.144	14.149 (0.902)	6957	1.00000	1.0	
82 1,3,5-Trimethylbenzene 105 14.473 14.478 (0.923) 24314 1.00000 0.92(a) 83 2-Chlorotoluene 91 14.416 14.413 (0.919) 20821 1.00000 0.93(a) 84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.953) 22094 1.00000 0.90(a) 87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.5457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0 ** 91 1,4-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0 ** 91 1,4-Dichlorobenzene 146 15.570 15.708 (1.000) 734269 50.0000 92 1,4-Dichlorobenzene 146 15.570 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 1.0 10 1,2,3-Trimethylbenzene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 1.0 10 1,2,3-Trimethylbenzene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 1.0 104 Methylzclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	80 N-Propylbenzene	91	14.187	14.185 (0.904)	36443	1.00000	1.00	
83 2-Chlorotoluene 91 14.416 14.413 (0.919) 20821 1.00000 0.93(a) 84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.953) 22094 1.00000 0.90(a) 87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0  96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 1.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	81 1,1,2,2-Tetrachloroethane	83	14.294	14.292 (0.911)	9779	1.00000	1.0	
84 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 8160 1.00000 1.1 85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.953) 22094 1.00000 0.90(a) 87 Pentachloroethane 117 14.955 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.574 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0 ** 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.2 10 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 1.0 10 1,2,3-Trimethylbenzene 106 15.753 15.750 (1.004) 26860 1.00000 1.0 1.0 10 1,2,3-Trimethylbenzene 180 19.871 19.869 (1.267) 6916 1.00000 1.0 1.0 10 1 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 1.0 10 1 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 1.0 10 1.0 1.0 1.0 1.0 1.0	82 1,3,5-Trimethylbenzene	105	14.473	14.478 (0.923)	24314	1.00000	0.92(a)	
85 4-Chlorotoluene 91 14.666 14.664 (0.935) 25015 1.00000 1.1 86 tert-Butylbenzene 119 14.952 14.957 (0.953) 22094 1.00000 0.90(a) 87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.966) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 0.76(a)	83 2-Chlorotoluene	91	14.416	14.413 (0.919)	20821	1.00000	0.93(a)	
86 tert-Butylbenzene       119       14.952       14.957 (0.953)       22094       1.00000       0.90(a)         87 Pentachloroethane       117       14.995       14.985 (0.956)       4827       1.00000       0.83(a)         88 1,2,4-Trimethylbenzene       105       15.066       15.064 (0.960)       23139       1.00000       0.88(a)         89 P-Isopropyltoluene       119       15.460       15.457 (0.985)       21661       1.00000       0.84(a)         90 1,3-Dichlorobenzene       146       15.574       15.572 (0.993)       13074       1.00000       1.0         * 91 1,4-Dichlorobenzene-D4       152       15.689       15.686 (1.000)       734269       50.0000         92 1,4-Dichlorobenzene       146       15.710       15.708 (1.001)       15446       1.00000       1.1         93 N-Butylbenzene       91       16.139       16.137 (1.029)       27575       1.00000       0.92(a)         94 sec-Butylbenzene       105       15.231       15.229 (0.971)       29566       1.00000       0.92(a)         95 1,2-Dibromo-3-Chloropropane       75       17.748       17.745 (1.131)       1391       1.00000       1.0         97 1,3,5-Trichlorobenzene       180       17.805       17.803 (1.135) <td>84 1,2,3-Trichloropropane</td> <td>75</td> <td>14.494</td> <td>14.492 (0.924)</td> <td>8160</td> <td>1.00000</td> <td>1.1</td> <td></td>	84 1,2,3-Trichloropropane	75	14.494	14.492 (0.924)	8160	1.00000	1.1	
87 Pentachloroethane 117 14.995 14.985 (0.956) 4827 1.00000 0.83(a) 88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0 ** 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000 ** 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 ** 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 ** 91 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 ** 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.2 ** 10 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 ** 10 1.0 ** 10 1,2,3-Trimethylbenzene 180 19.871 19.869 (1.267) 6916 1.00000 1.0 ** 10 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 ** 10 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 1.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 0.76(a) ** 10 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	85 4-Chlorotoluene	91	14.666	14.664 (0.935)	25015	1.00000	1.1	
88 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) 23139 1.00000 0.88(a) 89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	86 tert-Butylbenzene	119	14.952	14.957 (0.953)	22094	1.00000	0.90(a)	
89 P-Isopropyltoluene 119 15.460 15.457 (0.985) 21661 1.00000 0.84(a) 90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000  92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1  93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a)  94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a)  95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0  96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a)  97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1  98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1  99 1,2,4-Trichlorobenzene 180 18.994 (1.205) 4312 1.00000 1.2  100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0  101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0  102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0  103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 0.76(a)	87 Pentachloroethane	117	14.995	14.985 (0.956)	4827	1.00000	0.83(a)	
90 1,3-Dichlorobenzene 146 15.574 15.572 (0.993) 13074 1.00000 1.0  * 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000  92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1  93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a)  94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a)  95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0  96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a)  97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1  98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1  99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2  100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0  101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0  102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0  103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0  104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	88 1,2,4-Trimethylbenzene	105	15.066	15.064 (0.960)	23139	1.00000	0.88(a)	
* 91 1,4-Dichlorobenzene-D4 152 15.689 15.686 (1.000) 734269 50.0000 92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	89 P-Isopropyltoluene	119	15.460	15.457 (0.985)	21661	1.00000	0.84(a)	
92 1,4-Dichlorobenzene 146 15.710 15.708 (1.001) 15446 1.00000 1.1 93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	90 1,3-Dichlorobenzene	146	15.574	15.572 (0.993)	13074	1.00000	1.0	
93 N-Butylbenzene 91 16.139 16.137 (1.029) 27575 1.00000 0.92(a) 94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	* 91 1,4-Dichlorobenzene-D4	152	15.689	15.686 (1.000)	734269	50.0000		
94 sec-Butylbenzene 105 15.231 15.229 (0.971) 29566 1.00000 0.92(a) 95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 100 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 100 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 100 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	92 1,4-Dichlorobenzene	146	15.710	15.708 (1.001)	15446	1.00000	1.1	
95 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 11612 1.00000 1.0 96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	93 N-Butylbenzene	91	16.139	16.137 (1.029)	27575	1.00000	0.92(a)	
96 1,2-Dibromo-3-Chloropropane 75 17.748 17.745 (1.131) 1391 1.00000 0.94(a) 97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	94 sec-Butylbenzene	105	15.231	15.229 (0.971)	29566	1.00000	0.92(a)	
97 1,3,5-Trichlorobenzene 180 17.805 17.803 (1.135) 9811 1.00000 1.1 98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	95 1,2-Dichlorobenzene	146	16.389	16.387 (1.045)	11612	1.00000	1.0	
98 Hexachlorobutadiene 225 18.906 18.904 (1.205) 4312 1.00000 1.1 99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	96 1,2-Dibromo-3-Chloropropane	75	17.748	17.745 (1.131)	1391	1.00000	0.94(a)	
99 1,2,4-Trichlorobenzene 180 18.949 18.947 (1.208) 8562 1.00000 1.2 100 1,2,3-Trimethylbenzene 105 15.753 15.750 (1.004) 26860 1.00000 1.0 101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	97 1,3,5-Trichlorobenzene	180	17.805	17.803 (1.135)	9811	1.00000	1.1	
100 1,2,3-Trimethylbenzene       105       15.753       15.750 (1.004)       26860       1.00000       1.0         101 Naphthalene       128       19.542       19.533 (1.246)       16475       1.00000       1.0         102 1,2,3-Trichlorobenzene       180       19.871       19.869 (1.267)       6916       1.00000       2.0         103 Methyl Acetate       43       5.142       5.133 (0.629)       6552       1.00000       1.0         104 Methylcyclohexane       83       8.767       8.772 (1.072)       8523       1.00000       0.76(a)	98 Hexachlorobutadiene	225	18.906	18.904 (1.205)	4312	1.00000	1.1	
101 Naphthalene 128 19.542 19.533 (1.246) 16475 1.00000 1.0 102 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) 6916 1.00000 2.0 103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	99 1,2,4-Trichlorobenzene	180	18.949	18.947 (1.208)	8562	1.00000	1.2	
102 1,2,3-Trichlorobenzene     180     19.871     19.869 (1.267)     6916     1.00000     2.0       103 Methyl Acetate     43     5.142     5.133 (0.629)     6552     1.00000     1.0       104 Methylcyclohexane     83     8.767     8.772 (1.072)     8523     1.00000     0.76(a)	100 1,2,3-Trimethylbenzene	105	15.753	15.750 (1.004)	26860	1.00000	1.0	
103 Methyl Acetate 43 5.142 5.133 (0.629) 6552 1.00000 1.0 104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	101 Naphthalene	128	19.542	19.533 (1.246)	16475	1.00000	1.0	
104 Methylcyclohexane 83 8.767 8.772 (1.072) 8523 1.00000 0.76(a)	102 1,2,3-Trichlorobenzene	180	19.871	19.869 (1.267)	6916	1.00000	2.0	
	103 Methyl Acetate	43	5.142	5.133 (0.629)	6552	1.00000	1.0	
M 153 Total Alkylbenzenes 100 184792 1.00000 (a)	104 Methylcyclohexane	83	8.767	8.772 (1.072)	8523	1.00000	0.76(a)	
	M 153 Total Alkylbenzenes	100			184792	1.00000	(a)	

# QC Flag Legend

- M Compound response manually integrated.



Data File: \target\_server\gg\chem\gcms-c.i\C111313.b\C4234A.D

Report Date: 15-Nov-2013 10:02

# Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C111313.b\C4234A.D

Lab Smp Id:  $WG134\overline{3}65\overline{-7}$ Client Smp ID: WG134365-LCS

Inj Date : 13-NOV-2013 13:25

Operator : REC Smp Info : WG134365-7,SG8848 Misc Info : WG134365,WG134365-4,SG8848-1 Inst ID: gcms-c.i

Comment : SW846 5030
Method : \target\_server\gg\chem\gcms-c.i\C111313.b\C826A90.m

Meth Date: 14-Nov-2013 07:02 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 7 QC Sample: IND CHECK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged DF Vo

Local Compound Variable Cpnd Variable

					CONCENTR	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		=======	======	======	========
1 Dichlorodifluoromethane	85	2.050	2.051 (0.251)	317991	34.2920	34.3(R)	
2 Chloromethane	50	2.301	2.301 (0.281)	502244	40.2334	40.2	
3 Vinyl chloride	62	2.401	2.401 (0.294)	404161	43.5603	43.6	
4 Bromomethane	94	2.815	2.816 (0.344)	210477	43.3630	43.4	
5 Chloroethane	64	2.980	2.980 (0.364)	135087	31.5331	31.5(R)	
6 Trichlorofluoromethane	101	3.166	3.166 (0.387)	469465	48.6560	48.6	
7 Diethyl Ether	59	3.602	3.602 (0.440)	283995	50.2129	50.2	
8 Tertiary-butyl alcohol	59	5.490	5.490 (0.671)	157769	249.779	250	
9 1,1-Dichloroethene	96	3.881	3.881 (0.475)	296950	61.2064	61.2(R)	
10 Carbon Disulfide	76	3.917	3.917 (0.479)	1086856	57.9195	57.9	
11 Freon-113	151	3.945	3.946 (0.482)	163129	53.1001	53.1	
12 Iodomethane	142	4.095	4.089 (0.501)	267037	56.9441	56.9	
13 Acrolein	56	4.410	4.410 (0.539)	293871	253.626	254	
14 Methylene Chloride	84	4.810	4.811 (0.588)	432349	56.9093	56.9	
15 Acetone	43	4.910	4.904 (0.600)	167775	70.9583	71.0(R)	
16 Isobutyl Alcohol	43	8.378	8.379 (1.024)	289052	1093.62	1090	
17 trans-1,2-Dichloroethene	96	5.089	5.090 (0.622)	340527	53.2788	53.3	
18 Allyl Chloride	41	4.632	4.632 (0.566)	620346	51.3726	51.4	
19 Methyl tert-butyl ether	73	5.289	5.290 (0.647)	1803818	107.732	108	
20 Acetonitrile	39	5.697	5.697 (0.697)	124774	538.035	538	
21 Di-isopropyl ether	45	5.933	5.940 (0.725)	1264600	52.6355	52.6	
22 Chloroprene	53	6.069	6.069 (0.742)	524493	52.6920	52.7	
23 Propionitrile	54	8.107	8.106 (0.991)	579945	525.583	526	
24 Methacrylonitrile	41	8.128	8.128 (0.994)	2382102	508.244	508	

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4234A.D$  Report Date: 15-Nov-2013 10:02

							CONCENTR.	ATIONS	
		QUANT SIG					ON-COLUMN	FINAL	
	ompounds	MASS	RT	EXP RT		RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
==	25 1,1-Dichloroethane	==== 63	6.105		(0.746)	683350	====== 54.3168	====== 54.3	========
	26 Acrylonitrile	52	6.197		(0.758)	624993	260.630	261	
	27 Ethyl tertiary-butyl ether	59	6.498		(0.795)	1008348	52.8340	52.8	
	28 Vinyl Acetate	43	6.519		(0.738)	979334	67.5248	67.5(R)	
	29 cis-1,2-Dichloroethene	96	6.912		(0.736)	378643	52.7724	52.8	
M			0.912	0.913	(0.845)	719170	106.051	106	
M	, <u> </u>	41	9.694	0 604	(1.097)	349015	53.6096	53.6	
	31 Methyl Methacrylate 32 2,2-Dichloropropane	77							
	33 Bromochloromethane		7.055		(0.863)	513520	54.5077	54.5	
		128	7.184		(0.878)	150584	52.6398	52.6	
	34 Chloroform	83	7.299		(0.892)	668566	53.1688	53.2	
	35 Carbon Tetrachloride	117	7.463		(0.845)	474849	55.7487	55.7	
	36 Tetrahydrofuran	42	7.506		(0.918)	116703	52.5338	52.5	
\$	37 Dibromofluoromethane	113	7.542		(0.922)	302589	49.0705	49.1	
	38 1,1,1-Trichloroethane	97	7.563		(0.925)	573925	54.0428	54.0	
	39 1,1-Dichloropropene	75	11.002			554443	53.9352	53.9	
	40 2-Butanone	43	7.720		(0.944)	207115	60.5866	60.6(R)	
	41 Benzene	78	8.049		(0.911)	1461133	52.6724	52.7	
*	42 Pentafluorobenzene	168	8.178	8.178	(1.000)	808491	50.0000		
	43 Cyclohexane	56	7.170	7.170	(0.877)	711253	63.8668	63.9(R)	
	44 Ethyl Methacrylate	69	11.188	11.189	(1.266)	474403	52.9642	53.0	
5	45 1,2-Dichloroethane-D4	65	8.228	8.228	(1.006)	316182	47.3169	47.3	
	46 Tertiary-amyl methyl ether	73	8.214	8.214	(1.004)	853721	51.7496	51.7	
	47 1,2-Dichloroethane	62	8.314	8.314	(0.941)	451576	53.3120	53.3	
	48 Trichloroethene	95	8.786	8.786	(0.994)	347810	52.3913	52.4	
	49 1,4-Difluorobenzene	114	8.836	8.836	(1.000)	1505681	50.0000		
	50 Dibromomethane	93	9.301	9.301	(1.053)	223065	48.4861	48.5	
	51 1,2-Dichloropropane	63	9.422	9.423	(1.066)	392514	54.9270	54.9	
	52 Bromodichloromethane	83	9.501	9.501	(1.075)	541663	54.3964	54.4	
	53 cis-1,3-dichloropropene	75	10.244	10.245	(1.159)	624340	50.9258	50.9	
	54 1,4-Dioxane	88	9.744	9.737	(1.103)	85116	816.602	817	
;	55 Toluene-D8	98	10.452	10.452	(1.183)	1069330	48.6098	48.6	
	56 2-Chloroethylvinylether	63	10.180	10.181		149266	51.2814	51.3	
	57 Toluene	92		10.509		887703	51.4451	51.4	
	58 4-methyl-2-pentanone	43		10.960		373088	55.7846	55.8	
	59 Tetrachloroethene	164	10.959	10.960		242067	49.9238	49.9	
	60 trans-1,3-Dichloropropene	75		11.003		554443	53.9352	53.9	
	61 1,1,2-Trichloroethane	83		11.196		281598	50.1252	50.1	
	62 Dibromochloromethane	129	11.410	11.410		358558	52.9485	52.9	
	63 1,3-Dichloropropane	76		11.525		618409	51.7096	51.7	
	64 1,2-Dibromoethane	107		11.696		340412	50.7099	50.7	
_	65 2-Hexanone	43		11.975		285632	58.0067	58.0	
	66 Chlorobenzene-D5	117		12.340		1429852	50.0000	F2 6	
	67 Chlorobenzene	112		12.361		898361	53.6169	53.6	
	152 1-Chlorohexane	91		12.326		610290	51.8240	51.8	
	68 Ethylbenzene	106		12.390		509896	51.0199	51.0	
	69 1,1,1,2-Tetrachloroethane	131	⊥2.440	12.440	(1.008)	326373	50.8111	50.8	
1	70 Xylenes (total)	106				1869426	164.471	164	
	71 m+p-Xylenes	106		12.583		1251251	107.787	108	
	72 o-Xylene	106		13.155		618175	56.6835	56.7	
	73 Styrene	104	13.233	13.226	(1.072)	1066706	53.8266	53.8	
	74 Bromoform	173	13.269	13.269	(1.075)	224803	50.6977	50.7	
	75 Isopropylbenzene	105	13.591	13.591	(0.866)	1666310	56.8307	56.8	
\$	76 P-Bromofluorobenzene	95	13.991	13.992	(1.583)	466270	45.3833	45.4	
	77 -i - 1 4 Di-1-1 0 D-1	F 2	1 4 001	1 4 000	(0 000)	1 401 40	F1 4046	F1 F	

77 cis-1,4-Dichloro-2-Butene 53 14.091 14.092 (0.898) 147147 51.4846 51.5

Data File:  $\t server \g \chem \gcms-c.i\C111313.b\C4234A.D$  Report Date: 15-Nov-2013 10:02

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====	=======================================		======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.556	14.556 (0.928)	138112	53.7341	53.7	
79 Bromobenzene	156	14.148	14.149 (0.902)	355317	50.0995	50.1	
80 N-Propylbenzene	91	14.184	14.185 (0.904)	2195643	57.6566	57.6	
81 1,1,2,2-Tetrachloroethane	83	14.291	14.292 (0.911)	489531	50.2216	50.2	
82 1,3,5-Trimethylbenzene	105	14.477	14.478 (0.923)	1427886	51.8063	51.8	
83 2-Chlorotoluene	91	14.413	14.413 (0.919)	1310815	56.2257	56.2	
84 1,2,3-Trichloropropane	75	14.492	14.492 (0.924)	381283	49.1276	49.1	
85 4-Chlorotoluene	91	14.663	14.664 (0.935)	1373731	56.3739	56.4	
86 tert-Butylbenzene	119	14.956	14.957 (0.954)	1411208	55.4054	55.4	
87 Pentachloroethane	117	14.985	14.985 (0.955)	304763	50.5341	50.5	
88 1,2,4-Trimethylbenzene	105	15.064	15.064 (0.960)	1466847	53.8424	53.8	
89 P-Isopropyltoluene	119	15.457	15.457 (0.985)	1527806	56.9415	56.9	
90 1,3-Dichlorobenzene	146	15.571	15.572 (0.993)	680855	52.7635	52.8	
* 91 1,4-Dichlorobenzene-D4	152	15.686	15.686 (1.000)	764920	50.0000		
92 1,4-Dichlorobenzene	146	15.714	15.708 (1.002)	696839	48.8142	48.8	
93 N-Butylbenzene	91	16.136	16.137 (1.029)	1687668	53.7966	53.8	
94 sec-Butylbenzene	105	15.235	15.229 (0.971)	1930905	57.4991	57.5	
95 1,2-Dichlorobenzene	146	16.394	16.387 (1.045)	639980	53.9199	53.9	
96 1,2-Dibromo-3-Chloropropane	75	17.745	17.745 (1.131)	77809	50.6561	50.6	
97 1,3,5-Trichlorobenzene	180	17.802	17.803 (1.135)	454921	48.2667	48.3	
98 Hexachlorobutadiene	225	18.903	18.904 (1.205)	190533	45.0873	45.1	
99 1,2,4-Trichlorobenzene	180	18.946	18.947 (1.208)	332788	43.8597	43.8	
100 1,2,3-Trimethylbenzene	105	15.750	15.750 (1.004)	1417197	51.4521	51.4	
101 Naphthalene	128	19.540	19.533 (1.246)	723896	42.3318	42.3	
102 1,2,3-Trichlorobenzene	180	19.869	19.869 (1.267)	218983	36.3511	36.4(R)	
103 Methyl Acetate	43	5.132	5.133 (0.628)	298725	45.5559	45.6	
104 Methylcyclohexane	83	8.772	8.772 (1.073)	631110	55.5902	55.6	
M 153 Total Alkylbenzenes	100			11647963	386.948	387	

# QC Flag Legend

R - Spike/Surrogate failed recovery limits.

File: \\target\_server\gg\chem\goms-c.i\C111313.b\C4234A.D





# Form 6 Initial Calibration Summary

Lab Name : Katahdin Analytical ServicesSDG: WE40-1Project : NAVSTA Newport CTO WE40-04Instrument ID: GCMS-D

Lab File IDs: D6755.D D6754.D D6753.D Column ID:

D6752.D D6751.D D6750.D **Calibration Date(s):** 19-NOV-13 10:08

19-NOV-13 12:52

	1.0000	5.0000	20.0000	50.0000	100.0000	200.0000	New	b	m1	m2	%RSD	Max	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Crv					%RSD	
Methyl tert-butyl ether	1.22855	1.37009	1.48041	1.62572	1.72372	1.42496	AVG		1.47557		12.07966	15.00000	О
Benzene	1.18650	1.27545	1.44810	1.50306	1.53577	1.35699	AVG		1.38431		9.84353	15.00000	0
Toluene	12955	91257	449704	1104556	2125408	3667783	LNR	-0.01139	0.90549		0.99811	0.99000	О
Ethylbenzene	0.41839	0.47004	0.57049	0.57559	0.61456	0.56564	AVG		0.53579		13.96469	15.00000	О
Xylenes (total)	+++++	+++++	+++++	+++++	++++	+++++	AVG		0.000e+00		0.000e+0	15.00000	М
m+p-Xylenes	16290	120203	609136	1492277	2897116	5226652	LNR	-0.05224	0.65140		0.99626	0.99000	О
o-Xylene	6573	46685	271534	702498	1430423	2750882	LNR	0.01537	0.68125		0.99895	0.99000	О
Dibromofluoromethane	0.54887	0.50886	0.46369	0.50529	0.53136	0.48807	AVG		0.50769		5.96438	15.00000	
1,2-Dichloroethane-D4	0.78805	0.73184	0.64162	0.68377	0.70723	0.68849	AVG		0.70683		7.02925	15.00000	
Toluene-D8	1.02404	1.16458	1.16023	1.23684	1.21778	1.09172	AVG		1.14920		6.93016	15.00000	
P-Bromofluorobenzene	0.43964	0.42232	0.43701	0.48959	0.54632	+++++	AVG		0.46698		10.94413	15.00000	

Legend: O = Kept Original Curve

Y = Failed Minimum RF

W = Failed %RSD Value

Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6756A.D

Report Date: 02-Dec-2013 12:32

# Katahdin Analytical Services

#### RECOVERY REPORT

Client Name: Client SDG: WG134694

Sample Matrix: LIQUID Fraction: VOA

Lab Smp Id: WG134694-12 Client Smp ID: Independent Source

Level: LOW Operator: DJP Data Type: MS DATA SampleType: LCS
SpikeList File: IND\_CHECK4.1.spk Quant Type: ISTD
Sublist File: SW8260-S.sub
Method File: \target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m
Misc Info: WG134694,WG134694-4,SG9180-1

SPIKE COMPOUND		CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Dichlorodification of the company	ane ride ne luoromet ner ntyl alc roethene nlfide  Chloride  Chloride  Chloride  Leohol Dichloro ride c-butyl le roethane ile nitrile roethane ile lary-but ate chloroet roethyle nacrylat ropropan omethane cachlori furan nloroeth	50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0	35.3 38.35.600.798.62.531.995.60.478.9856.255.31.995.02.46.31.92.44.33.0895.05.08.07.60.1.04.08.30.899.433.0895.05.01.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.04.00.10.00.10.04.00.10.1	70.69* 76.58* 86.95 89.14 99.43 97.87 23.14 86.32 89.66 92.52 92.26 135.82 104.64 110.88 107.20 78.40* 99.80 107.20* 108.81 93.22 119.56 105.24 108.08 107.25 96.79 105.94	80-120 80-120

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6756A.D$  Report Date: 02-Dec-2013 12:32

ADDED	1		CONC	CONC	%	<u> </u>
### 43 Cyclohexane ### 550.0	SPIKE (	COMPOUND			RECOVERED	LIMITS
44 Ethyl Methacrylate			ug/1	ug/1		
46 Tertiary-amyl meth   50.0   50.2   100.32   80-120   48 Trichloroethane   50.0   51.7   103.32   80-120   50 Dibromomethane   50.0   53.4   106.83   80-120   51 1,2-Dichloropropan   50.0   53.8   107.54   80-120   52 Dibromomethane   50.0   53.8   107.54   80-120   53 cis-1,3-dichloropropen   50.0   47.5   95.06   80-120   53 cis-1,3-dichloropropen   50.0   47.5   95.06   80-120   50.0   55.0   55.0   80-120   50.0   55.0   50.0   5						
47         1,2-Dichloroethane         50.0         51.7         103.32         80-120           50         Dibromomethane         50.0         51.4         102.88         80-120           51         1,2-Dichloropropan         50.0         51.4         102.88         80-120           52         Bromodichlorometha         50.0         51.0         101.98         80-120           54         1,4-Dioxane         1000         20.7         2.07*         80-120           54         1,4-Dioxane         1000         20.7         2.07*         80-120           55         2-Chloroethylvinyl         50.0         48.0         96.00         80-120           57         Toluene         50.0         49.6         99.28         80-120           59         Tetrachloroethene         50.0         49.6         99.28         80-120           60         trans-1,3-Dichloro         50.0         49.0         98.03         80-120           61         1,1,2-Trichloroeth         50.0         51.7         103.41         80-120           61         1,2-Dibromoethane         50.0         52.0         104.08         80-120           65         2-Hexanone         50.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
50 Dibromomethane	47	1,2-Dichloroethane	50.0	51.7	103.32	80-120
51 1,2-Dichloropropan   50.0   53.8   107.54   80-120   53   cis-1,3-dichlorometha   50.0   51.0   101.98   80-120   54   1,4-Dickane   1000   20.7   2.07*   80-120   56   2-Chloroethylvinyl   50.0   48.0   96.00   80-120   57   Toluene   50.0   49.6   99.28   80-120   58 4-methyl-2-pentano   50.0   49.6   99.28   80-120   59   Tetrachloroethene   50.0   49.6   99.28   80-120   60   trans-1,3-Dichloro   50.0   49.0   98.03   80-120   60   trans-1,3-Dichloroetha   50.0   53.7   107.49   80-120   61   1,1,2-Trichloroetha   50.0   51.7   103.41   80-120   62   Dibromochlorometha   50.0   54.0   108.01   80-120   63   1,3-Dichloropropan   50.0   52.0   103.91   80-120   63   1,3-Dichloropropan   50.0   52.0   103.91   80-120   65   2-Hexanone   50.0   52.0   104.08   80-120   67   Chlorobenzene   50.0   54.1   108.18   80-120   69   1,11,2-Tetrachlor   50.0   54.1   108.18   80-120   69   1,11,2-Tetrachlor   50.0   54.1   108.18   80-120   69   1,11,2-Tetrachlor   50.0   54.1   108.18   80-120   67   Chlorobenzene   50.0   54.1   108.18   80-120   67   Chlorobenzene   50.0   54.1   108.18   80-120   69   1,11,2-Tetrachlor   50.0   54.1   108.23   80-120   70   Xylenes   50.0   54.1   108.23   80-120   70   Xylenes   50.0   54.1   108.23   80-120   70   Xylenes   50.0   54.1   108.23   80-120   70   Xylene   50.0   54.5   59   106.10   80-120   70   Xylene   50.0   54.6   91.28   80-120   70   Xylene   50.0   54.6   91.28   80-120   70   Xylene   50.0   51.5   102.96   80-120   8						
52 Bromodichlorometha   50.0   51.0   101.98   80-120   54   1,4-Dioxane   1000   20.7   2.07*   80-120   56   2-Chloroethylvinyl   50.0   48.0   96.00   80-120   57 Toluene   50.0   49.6   99.28   80-120   58   4-methyl-2-pentano   50.0   42.9   85.79   80-120   59 Tetrachloroethene   50.0   53.7   70.49   80-120   60 trans-1,3-Dichloro   50.0   50.0   49.0   98.03   80-120   61   1,2-Trichloroeth   50.0   51.7   61   1,2-Trichloroeth   50.0   51.7   62   Dibromochlorometha   50.0   54.0   108.01   80-120   64   1,2-Dibromochlane   50.0   52.0   103.91   80-120   65   2-Hexanone   50.0   52.0   104.08   80-120   67 Chlorobenzene   50.0   56.1   112.19   80-120   68 Ethylbenzene   50.0   54.1   108.18   80-120   68 Ethylbenzene   50.0   54.1   108.18   80-120   69   1,1,1,2-Tetrachlor   50.0   54.1   108.23   80-120   69   1,1,1,2-Tetrachlor   50.0   54.1   108.23   80-120   71   m+p-Xylenes   100   108   107.68   80-120   72   o-Xylene   50.0   51.5   102.96   80-120   73   Styrene   50.0   54.6   91.23   80-120   74   Bromoform   50.0   45.6   91.28   80-120   75   Sopropylbenzene   50.0   54.0   108.01   80-120   75   80-120						
1000   20.7   2.07*   80-120   562-Chloroethylvinyl   50.0   48.0   96.00   80-120   57   Toluene   50.0   49.6   99.28   80-120   58   4-methyl-2-pentano   50.0   42.9   85.79   80-120   59   Etrachloroethene   50.0   53.7   107.49   80-120   61   1,12-Trichloroeth   50.0   51.7   103.41   80-120   62   Dibromochlorometha   50.0   54.0   108.01   80-120   63   1,3-Dichloropropan   50.0   52.0   103.91   80-120   64   1,2-Dibromoethane   50.0   52.0   104.08   80-120   65   2-Hexanome   50.0   55.0   45.6   91.23   80-120   67   Chlorobenzene   50.0   56.1   112.19   80-120   68   Ethylbenzene   50.0   54.1   108.18   80-120   68   Ethylbenzene   50.0   54.1   108.18   80-120   69   1,1,1,2-Tetrachlor   50.0   54.1   108.23   80-120   69   1,1,1,2-Tetrachlor   50.0   54.1   108.23   80-120   69   1,1,1,2-Tetrachlor   50.0   54.1   108.23   80-120   70   70   70   70   70   70   70	52 1	Bromodichlorometha	50.0	51.0	101.98	80-120
S6 2-Chloroethylviny						
58 4-methyl-2-pentano         50.0         42.9         85.79         80-120           60 trans-1,3-Dichloro         50.0         49.0         98.03         80-120           61 trans-1,3-Dichloro         50.0         51.7         103.41         80-120           62 Dibromochlorometha         50.0         54.0         108.01         80-120           63 1,3-Dichloropropan         50.0         52.0         103.91         80-120           64 1,2-Dibromochhane         50.0         52.0         104.08         80-120           65 2-Hexanone         50.0         52.0         104.08         80-120           67 Chlorobenzene         50.0         56.1         112.19         80-120           68 Ethylbenzene         50.0         54.1         108.18         80-120           69 1,1,1,2-Tetrachlor         50.0         54.1         108.18         80-120           70 Xylenes (total)         150         159         106.10         80-120           71 m+p-Xylenes         100         108         107.68         80-120           72 syrene         50.0         51.5         102.96         80-120           73 styrene         50.0         49.4         98.81         80-120	56	2-Chloroethylvinyl	50.0	48.0	96.00	80-120
Spicial Procedure						
60 trans-1,3-Dichloro 61 1,1,2-Trichloroeth 62 Dibromochlorometha 63 1,3-Dichloropropan 64 1,2-Dibromochlane 64 1,2-Dibromochlane 65 2-Hexanone 67 Chlorohexane 68 Ethylbenzene 69 1,1,1,2-Tetrachlor 69 1,1,1,2-Tetrachlor 70 Xylenes (total) 71 m+p-Xylenes 72 c-Xylene 73 Styrene 74 Bromoform 75 Isopropylbenzene 75 Isopropylbenzene 75 Isopropylbenzene 75 Isopropylbenzene 80 N-Propylbenzene 81 1,1,2,2-Tetrachlor 81 1,1,2,2-Tetrachlor 81 1,1,2,2-Tetrachlor 82 1,3,5-Trimethylben 83 2-Chlorotoluene 84 1,2,3-Trichloroprop 85 1,2-Dichlorobenzen 86 1,2-Dibromoc-3-Chlo 87 PEntachlorobenzen 87 Pentachlorobenzen 88 1,2,4-Trichlorobenzen 99 1,3-Dichlorobenzen 90 1,3-Dichlorobenzen 90 1,2,4-Trichlorobenzen 90 1,2,4-Trichlorobenzen 90 1,2,3-Trimethylben 90 1,2,3-Trichloroben 90 1,2,3-Trimethylben 90 1,2,3-Trichloroben 90 1,2,3-Trimethylben 9						
62 Dibromochloromethal 63 1,3-Dichloropropan 64 1,2-Dibromochlane 65 2-Hexanone 66 2-Hexanone 67 Chlorobenzene 68 Ethylbenzene 69 1,1,1,2-Tetrachlor 69 1,1,1,2-Tetrachlor 70 Xylenes (total) 71 m+p-Xylenes 72 o-Xylene 73 Styrene 74 Bromoform 75 Isopropylbenzene 75 Isopropylbenzene 75 Isopropylbenzene 75 Isopropylbenzene 76 Shoo 77 cis-1,4-Dichloro-2 78 trans-1,4-Dichloro-2 79 Bromobenzene 80 No Propylbenzene 80 No Propylbenzene 80 No Propylbenzene 81 No Propylbenzene 80 No Propylbenzene 81 No Propylbenzene 81 No Propylbenzene 82 1,3,5-Trimethylben 83 2-Chlorotoluene 84 1,2,3-Trichloropro 85 4-Chlorobenzen 87 Pentachlorochane 88 1,2,4-Tririethylben 90 1,3-Dichlorobenzen 90 1,2-Dichlorobenzen 91 1,2-Dibromo-3-Chlo 90 1,2-Dichlorobenzen 91 1,2-Dichlorobenzen 93 N-Butylbenzene 94 Hexachlorobentadien 95 1,2,4-Trichloroben 96 1,2-Dibromo-3-Chlo 97 1,2,3-Trimethylben 97 1,2,3-Triimethylben 97 1,3,5-Triimethylben 98 Hexachlorobentadien 99 1,2,4-Trichloroben 90 1,3-Dichlorobenzen 90 1,2-Dichlorobenzen 91 1,2,4-Trichloroben 91 1,2,3-Trimethylben 90 1,2,3-Trimethylben 90 1,2,3-Trimethylben 90 1,2,3-Trimethylben 90 1,2,4-Trichloroben 90 1,2,3-Trimethylben 90 1,	60 1	trans-1,3-Dichloro	50.0	49.0	98.03	80-120
63 1,3-Dichloropropan         50.0         52.0         103.91         80-120           64 1,2-Dibromoethane         50.0         52.0         104.08         80-120           65 2-Hexanone         50.0         45.6         91.23         80-120           67 Chlorobenzene         50.0         56.1         112.19         80-120           152 1-Chlorohexane         50.0         54.1         108.18         80-120           68 Ethylbenzene         50.0         54.1         108.23         80-120           69 1,1,1,2-Tetrachlor         50.0         54.1         108.23         80-120           71 m+p-Xylenes         100         108         107.68         80-120           71 m+p-Xylenes         100         108         107.68         80-120           73 Styrene         50.0         51.5         102.96         80-120           75 Isopropylbenzene         50.0         49.4         98.81         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           79 Bromobenzene         50.0         49.8         99.50         80-120           79 Bromobenzene         50.0         49.8         99.50         80-120						
65 2-Hexanone         50.0         45.6         91.23         80-120           67 Chlorobenzene         50.0         56.1         112.19         80-120           68 Ethylbenzene         50.0         54.1         108.18         80-120           69 1,1,1,2-Tetrachlor         50.0         54.1         108.23         80-120           M 70 Xylenes (total)         150         159         106.10         80-120           71 m+p-Xylenes         100         108         107.68         80-120           72 o-Xylene         50.0         51.5         102.96         80-120           73 Styrene         50.0         49.4         98.81         80-120           75 Isopropylbenzene         50.0         45.6         91.28         80-120           75 Isopropylbenzene         50.0         45.6         91.28         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           75 Isopropylbenzene         50.0         49.8         99.50         80-120           75 Isopropylbenzene         50.0         49.8         99.50         80-120	63	1,3-Dichloropropan	50.0	52.0	103.91	80-120
67 Chlorobenzene         50.0         56.1         112.19         80-120           152 1-Chlorohexane         50.0         54.1         108.18         80-120           68 Ethylbenzene         50.0         53.8         107.55         80-120           69 1,1,1,2-Tetrachlor         50.0         54.1         108.23         80-120           M 70 Xylenes (total)         150         159         106.10         80-120           71 m+p-Xylenes         100         108         107.68         80-120           72 o-Xylene         50.0         51.5         102.96         80-120           73 Styrene         50.0         49.4         98.81         80-120           74 Bromoform         50.0         45.6         91.28         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           77 cis-1,4-Dichloro-2         50.0         52.0         103.94         80-120           79 Bromobenzene         50.0         49.8         99.50         80-120           80 N-Propylbenzene         50.0         54.0         107.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120						
152 1-Chlorohexane						
69 1,1,1,2-Tetrachlor         50.0         54.1         108.23         80-120           M 70 Xylenes (total)         150         159         106.10         80-120           71 m+p-Xylenes         100         108         107.68         80-120           72 o-Xylene         50.0         51.5         102.96         80-120           73 Styrene         50.0         49.4         98.81         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           75 Isopropylbenzene         50.0         52.0         103.94         80-120           78 trans-1,4-Dichloro         50.0         52.0         103.94         80-120           79 Bromobenzene         50.0         54.0         107.90         80-120           80 N-Propylbenzene         50.0         54.0         107.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.8         99.50         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           81 1,2,3-Trichloropen         50.0         49.9         99.76         80-120           84 1,2,3-Trichloropen         50.0         48.6         97.23         80-120 </td <td></td> <td></td> <td>50.0</td> <td>54.1</td> <td></td> <td>80-120</td>			50.0	54.1		80-120
M 70 Xylenes (total)         150         159         106.10         80-120           71 m+p-Xylenes         100         108         107.68         80-120           72 o-Xylene         50.0         51.5         102.96         80-120           73 Styrene         50.0         49.4         98.81         80-120           75 Isopropylbenzene         50.0         45.6         91.28         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           78 trans-1,4-Dichloro         50.0         49.8         99.50         80-120           79 Bromobenzene         50.0         54.0         107.90         80-120           80 N-Propylbenzene         50.0         54.0         107.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           82 1,3,5-Trimethylben         50.0         49.2         98.38         80-120           84 1,2,3-Trichloroporo         50.0         49.9         99.76         80-120           85 4-Chlorotoluene         50.0         48.6         97.23         80-120           87 Pentachloroethane         50.0         51.7         103.46         80-120						
72 o-Xylene         50.0         51.5         102.96         80-120           73 Styrene         50.0         49.4         98.81         80-120           74 Bromoform         50.0         45.6         91.28         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           77 cis-1,4-Dichloro-2         50.0         52.0         103.94         80-120           78 trans-1,4-Dichloro         50.0         49.8         99.50         80-120           79 Bromobenzene         50.0         49.8         99.50         80-120           80 N-Propylbenzene         50.0         51.4         102.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           82 1,3,5-Trimethylben         50.0         49.2         98.38         80-120           83 2-Chlorotoluene         50.0         49.9         99.76         80-120           84 1,2,3-Trichloropro         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         51.7         103.46         80-120           86 tert-Butylbenzene         50.0         51.7         103.24         80-120	M 70 2	Xylenes (total)	150	159	106.10	80-120
73 Styrene         50.0         49.4         98.81         80-120           74 Bromoform         50.0         49.4         98.76         80-120           75 Isopropylbenzene         50.0         49.4         98.76         80-120           77 cis-1,4-Dichloro-2         50.0         52.0         103.94         80-120           78 trans-1,4-Dichloro         50.0         49.8         99.50         80-120           79 Bromobenzene         50.0         49.8         99.50         80-120           80 N-Propylbenzene         50.0         54.0         107.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           82 1,3,5-Trimethylben         50.0         49.9         99.76         80-120           83 2-Chlorotoluene         50.0         49.9         99.76         80-120           84 1,2,3-Trichloropro         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         51.7         103.46         80-120           86 tert-Butylbenzene         50.0         55.4         110.77         80-120           87 Pentachlorobenzen         50.0         49.6         99.18         80-120						
75 Isopropylbenzene         50.0         49.4         98.76         80-120           77 cis-1,4-Dichloro-2         50.0         52.0         103.94         80-120           78 trans-1,4-Dichloro         50.0         49.8         99.50         80-120           78 Bromobenzene         50.0         54.0         107.90         80-120           80 N-Propylbenzene         50.0         51.4         102.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           82 1,3,5-Trimethylben         50.0         49.2         98.38         80-120           83 2-Chlorotoluene         50.0         49.9         99.76         80-120           84 1,2,3-Trichloropro         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         51.7         103.46         80-120           86 tert-Butylbenzene         50.0         55.4         110.77         80-120           87 Pentachloroethane         50.0         49.6         99.18         80-120           81 1,2,4-Trimethylben         50.0         49.6         99.18         80-120           90 1,3-Dichlorobenzen         50.0         49.6         99.18						
77 cis-1,4-Dichloro-2         50.0         52.0         103.94         80-120           78 trans-1,4-Dichloro         50.0         49.8         99.50         80-120           79 Bromobenzene         50.0         54.0         107.90         80-120           80 N-Propylbenzene         50.0         51.4         102.90         80-120           81 1,1,2,2-Tetrachlor         50.0         49.2         98.38         80-120           82 1,3,5-Trimethylben         50.0         45.0         89.91         80-120           83 2-Chlorotoluene         50.0         49.9         99.76         80-120           84 1,2,3-Trichloropro         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         48.6         97.23         80-120           85 4-Chlorotoluene         50.0         51.7         103.46         80-120           86 tert-Butylbenzene         50.0         55.4         110.77         80-120           87 Pentachloroethane         50.0         45.7         91.37         80-120           88 1,2,4-Trimethylben         50.0         49.6         99.18 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
78 trans-1,4-Dichloro       50.0       49.8       99.50       80-120         79 Bromobenzene       50.0       54.0       107.90       80-120         80 N-Propylbenzene       50.0       51.4       102.90       80-120         81 1,1,2,2-Tetrachlor       50.0       49.2       98.38       80-120         82 1,3,5-Trimethylben       50.0       49.9       99.76       80-120         83 2-Chlorotoluene       50.0       48.6       97.23       80-120         84 1,2,3-Trichloropro       50.0       48.6       97.23       80-120         85 4-Chlorotoluene       50.0       51.7       103.46       80-120         86 tert-Butylbenzene       50.0       55.4       110.77       80-120         87 Pentachloroethane       50.0       53.1       106.22       80-120         88 1,2,4-Trimethylben       50.0       49.6       99.18       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         92 1,4-Dichlorobenzen       50.0       58.2       116.48       80-120         93 N-Butylbenzene       50.0       50.0       93.98       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09<						
80 N-Propylbenzene       50.0       51.4       102.90       80-120         81 1,1,2,2-Tetrachlor       50.0       49.2       98.38       80-120         82 1,3,5-Trimethylben       50.0       45.0       89.91       80-120         83 2-Chlorotoluene       50.0       49.9       99.76       80-120         84 1,2,3-Trichloropro       50.0       48.6       97.23       80-120         85 4-Chlorotoluene       50.0       51.7       103.46       80-120         86 tert-Butylbenzene       50.0       55.4       110.77       80-120         87 Pentachloroethane       50.0       55.4       110.77       80-120         88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         93 N-Butylbenzene       50.0       47.0       93.98       80-120         94 sec-Butylbenzene       50.0       58.5       117.09       80-120         97 1,2,5-Trichloroben       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       49.6       91.	78	trans-1,4-Dichloro	50.0	49.8	99.50	80-120
81 1,1,2,2-Tetrachlor       50.0       49.2       98.38       80-120         82 1,3,5-Trimethylben       50.0       45.0       89.91       80-120         83 2-Chlorotoluene       50.0       49.9       99.76       80-120         84 1,2,3-Trichloropro       50.0       48.6       97.23       80-120         85 4-Chlorotoluene       50.0       51.7       103.46       80-120         86 tert-Butylbenzene       50.0       55.4       110.77       80-120         87 Pentachloroethane       50.0       53.1       106.22       80-120         88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         94 sec-Butylbenzene       50.0       58.5       117.09       80-120         95 1,2-Dichlorobenzen       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       45.6       91.18       80-120         98 Hexachlorobutadien       50.0       49.7						
83 2-Chlorotoluene       50.0       49.9       99.76       80-120         84 1,2,3-Trichloropro       50.0       48.6       97.23       80-120         85 4-Chlorotoluene       50.0       51.7       103.46       80-120         86 tert-Butylbenzene       50.0       55.4       110.77       80-120         87 Pentachloroethane       50.0       53.1       106.22       80-120         88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         94 sec-Butylbenzene       50.0       47.0       93.98       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       49.7       99.45       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3	81	1,1,2,2-Tetrachlor	50.0	49.2	98.38	80-120
84 1,2,3-Trichloropro     50.0     48.6     97.23     80-120       85 4-Chlorotoluene     50.0     51.7     103.46     80-120       86 tert-Butylbenzene     50.0     55.4     110.77     80-120       87 Pentachloroethane     50.0     53.1     106.22     80-120       88 1,2,4-Trimethylben     50.0     45.7     91.37     80-120       89 P-Isopropyltoluene     50.0     49.6     99.18     80-120       90 1,3-Dichlorobenzen     50.0     58.2     116.48     80-120       92 1,4-Dichlorobenzen     50.0     51.2     102.43     80-120       93 N-Butylbenzene     50.0     47.0     93.98     80-120       94 sec-Butylbenzene     50.0     58.5     117.09     80-120       95 1,2-Dichlorobenzen     50.0     58.5     117.09     80-120       96 1,2-Dibromo-3-Chlo     50.0     45.6     91.18     80-120       97 1,3,5-Trichloroben     50.0     49.7     99.45     80-120       98 Hexachlorobutadien     50.0     49.7     99.45     80-120       99 1,2,4-Trichloroben     50.0     55.3     110.61     80-120       100 1,2,3-Trimethylben     50.0     51.7     103.47     80-120						
86 tert-Butylbenzene       50.0       55.4       110.77       80-120         87 Pentachloroethane       50.0       53.1       106.22       80-120         88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         93 N-Butylbenzene       50.0       47.0       93.98       80-120         94 sec-Butylbenzene       50.0       50.3       100.65       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       50.6       101.13       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120						
87 Pentachloroethane       50.0       53.1       106.22       80-120         88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         93 N-Butylbenzene       50.0       47.0       93.98       80-120         94 sec-Butylbenzene       50.0       50.3       100.65       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       49.7       99.45       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120						
88 1,2,4-Trimethylben       50.0       45.7       91.37       80-120         89 P-Isopropyltoluene       50.0       49.6       99.18       80-120         90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         93 N-Butylbenzene       50.0       47.0       93.98       80-120         94 sec-Butylbenzene       50.0       50.3       100.65       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       50.6       101.13       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120		<u> </u>				
90 1,3-Dichlorobenzen       50.0       58.2       116.48       80-120         92 1,4-Dichlorobenzen       50.0       51.2       102.43       80-120         93 N-Butylbenzene       50.0       47.0       93.98       80-120         94 sec-Butylbenzene       50.0       50.3       100.65       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       50.6       101.13       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120	88	1,2,4-Trimethylben	50.0	45.7	91.37	80-120
92 1,4-Dichlorobenzen     50.0     51.2     102.43     80-120       93 N-Butylbenzene     50.0     47.0     93.98     80-120       94 sec-Butylbenzene     50.0     50.3     100.65     80-120       95 1,2-Dichlorobenzen     50.0     58.5     117.09     80-120       96 1,2-Dibromo-3-Chlo     50.0     45.6     91.18     80-120       97 1,3,5-Trichloroben     50.0     50.6     101.13     80-120       98 Hexachlorobutadien     50.0     49.7     99.45     80-120       99 1,2,4-Trichloroben     50.0     55.3     110.61     80-120       100 1,2,3-Trimethylben     50.0     51.7     103.47     80-120					1	
94 sec-Butylbenzene       50.0       50.3       100.65       80-120         95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       50.6       101.13       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120	92	1,4-Dichlorobenzen	50.0	51.2	102.43	80-120
95 1,2-Dichlorobenzen       50.0       58.5       117.09       80-120         96 1,2-Dibromo-3-Chlo       50.0       45.6       91.18       80-120         97 1,3,5-Trichloroben       50.0       50.6       101.13       80-120         98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120						
96 1,2-Dibromo-3-Chlo     50.0     45.6     91.18     80-120       97 1,3,5-Trichloroben     50.0     50.6     101.13     80-120       98 Hexachlorobutadien     50.0     49.7     99.45     80-120       99 1,2,4-Trichloroben     50.0     55.3     110.61     80-120       100 1,2,3-Trimethylben     50.0     51.7     103.47     80-120						
98 Hexachlorobutadien       50.0       49.7       99.45       80-120         99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120	96	1,2-Dibromo-3-Chlo	50.0	45.6	91.18	80-120
99 1,2,4-Trichloroben       50.0       55.3       110.61       80-120         100 1,2,3-Trimethylben       50.0       51.7       103.47       80-120						
	99	1,2,4-Trichloroben	50.0	55.3	110.61	80-120

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6756A.D$  Report Date: 02-Dec-2013 12:32

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
102 1,2,3-Trichloroben	50.0	53.0	106.11	80-120
103 Methyl Acetate	50.0	41.0	82.03	80-120
104 Methylcyclohexane	50.0	49.8	99.52	80-120
M 153 Total Alkylbenzene	350	344	98.39	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
\$ 37 Dibromofluorometha	50.0	48.4	96.72	68-128
\$ 45 1,2-Dichloroethane	50.0	47.1	94.18	67-135
\$ 55 Toluene-D8	50.0	50.7	101.36	65-128
\$ 76 P-Bromofluorobenze	50.0	50.9	101.72	56-133

Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6750.D

Report Date: 19-Nov-2013 19:52

# Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6750.D

Lab Smp Id: WG134694-6 Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 10:08

Operator : DJP Smp Info : WG134694-6 Inst ID: gcms-d.i

Misc Info :

Comment : SW846 5030
Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 10:08 Cal File: D6750.D

Als bottle: 2 Calibration Sample, Level: 6

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor DF

5.000 sample purged Vo

Local Compound Variable Cpnd Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		=======	======	======	========
1 Dichlorodifluoromethane	85	2.075	2.073 (0.258)	1764280	200.000	192	
2 Chloromethane	50	2.304	2.303 (0.286)	2007016	200.000	166	
3 Vinyl chloride	62	2.404	2.403 (0.299)	1713142	200.000	175	
4 Bromomethane	94	2.804	2.804 (0.348)	753734	200.000	166	
5 Chloroethane	64	2.962	2.961 (0.368)	1000416	200.000	186	
6 Trichlorofluoromethane	101	3.148	3.140 (0.391)	2634348	200.000	220(A)	
7 Diethyl Ether	59	3.548	3.547 (0.441)	1039309	200.000	177	
8 Tertiary-butyl alcohol	59	5.343	5.342 (0.663)	473763	1000.00	992	
9 1,1-Dichloroethene	96	3.827	3.819 (0.475)	1065754	200.000	202(A)	
10 Carbon Disulfide	76	3.863	3.862 (0.480)	4337143	200.000	198	
11 Freon-113	151	3.891	3.890 (0.483)	663795	200.000	199	
12 Iodomethane	142	4.020	4.019 (0.499)	1095261	200.000	196	
13 Acrolein	56	4.306	4.304 (0.535)	1139264	1000.00	929	
14 Methylene Chloride	84	4.699	4.691 (0.584)	1474878	200.000	199	
15 Acetone	43	4.771	4.770 (0.592)	2646883	1000.00	1020(A)	
16 Isobutyl Alcohol	43	8.238	8.238 (1.023)	1151418	4000.00	3780	
17 trans-1,2-Dichloroethene	96	4.971	4.970 (0.617)	1323178	200.000	196	
18 Allyl Chloride	41	4.528	4.527 (0.562)	1428087	200.000	153	
19 Methyl tert-butyl ether	73	5.171	5.170 (0.642)	7845134	400.000	386	
20 Acetonitrile	39	5.536	5.535 (0.687)	430896	2000.00	2220(A)	
21 Di-isopropyl ether	45	5.822	5.821 (0.723)	4436162	200.000	199	
22 Chloroprene	53	5.943	5.942 (0.738)	1938928	200.000	215(A)	
23 Propionitrile	54	7.960	7.945 (0.988)	2458960	2000.00	2130(A)	
24 Methacrylonitrile	41	7.995	7.980 (0.993)	8625582	2000.00	1670	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6750.D$  Report Date: 19-Nov-2013 19:52

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT		RESPONSE	( ug/l)	( ug/l)	REVIEW COD
25 1,1-Dichloroethane	==== 63	5.972	5.971 (0.742)	2615344	200.000	====== 201(A)	=======
26 Acrylonitrile	52	6.043	6.035 (0.751)	2581135	1000.00	998	
27 Ethyl tertiary-butyl ether	59	6.379	6.379 (0.792)	4192321	200.000	205(A)	
28 Vinyl Acetate	43	6.387	6.386 (0.733)	3323732	200.000	197	
29 cis-1,2-Dichloroethene	96	6.780	6.772 (0.842)	1511156	200.000	204(A)	
31 Methyl Methacrylate	41	9.576	9.575 (1.099)	1570093	200.000	247(A)	
32 2,2-Dichloropropane	77	6.930	6.929 (0.861)	2197353	200.000	197	
33 Bromochloromethane	128	7.052	7.051 (0.876)	617950	200.000	186	
34 Chloroform	83	7.166	7.165 (0.890)	2657079	200.000	204(A)	
35 Carbon Tetrachloride	117	7.352	7.351 (0.844)	1912542	200.000	198	
36 Tetrahydrofuran	42	7.373	7.373 (0.916)	2677247	1000.00	979	
37 Dibromofluoromethane	113	7.409	7.408 (0.920)	1343532	200.000	192	
38 1,1,1-Trichloroethane	97	7.438	7.437 (0.924)	2378211	200.000	197	
39 1,1-Dichloropropene	75	7.438	7.608 (0.874)	1977809	200.000	196	
40 2-Butanone	43	7.581	7.573 (0.941)	4341528	1000.00	982	
41 Benzene	78		7.923 (0.911)				
		7.931		5583526	200.000	196	
42 Pentafluorobenzene	168	8.053	8.052 (1.000)	688189	50.0000	106	
43 Cyclohexane	56	7.066	7.065 (0.877)	2270326	200.000	196	
44 Ethyl Methacrylate	69	11.070	11.069 (1.271)	2268710	200.000	248(A)	
3 45 1,2-Dichloroethane-D4	65	8.095	8.095 (1.005)	1895247	200.000	195	
46 Tertiary-amyl methyl ether	73	8.103	8.102 (1.006)	3974977	200.000	213(A)	
47 1,2-Dichloroethane	62	8.181	8.180 (0.939)	2286800	200.000	211(A)	
48 Trichloroethene	95	8.667	8.667 (0.995)	1475620	200.000	216(A)	
49 1,4-Difluorobenzene	114	8.710	8.710 (1.000)	1028663	50.0000		
50 Dibromomethane	93	9.168	9.167 (1.053)	1020742	200.000	210(A)	
51 1,2-Dichloropropane	63	9.290	9.289 (1.066)	1496582	200.000	210(A)	
52 Bromodichloromethane	83	9.375	9.375 (1.076)	2199224	200.000	199	
53 cis-1,3-dichloropropene	75	10.119	10.118 (1.162)	2709249	200.000	198	
54 1,4-Dioxane	88	9.611	9.618 (1.103)	143576	4000.00	775	
5 55 Toluene-D8	98	10.333	10.333 (1.186)	4492033	200.000	190	
56 2-Chloroethylvinylether	63	10.398	10.390 (1.194)	554674	200.000	200(A)	
57 Toluene	92	10.398	10.390 (1.194)	3667783	200.000	196	
58 4-methyl-2-pentanone	43	10.834	10.826 (1.244)	7331612	1000.00	996	
59 Tetrachloroethene	164	10.848	10.840 (0.889)	1147940	200.000	186	
60 trans-1,3-Dichloropropene	75	10.877	10.876 (1.249)	2466312	200.000	199	
61 1,1,2-Trichloroethane	83	11.063	11.062 (1.270)	1204311	200.000	204(A)	
62 Dibromochloromethane	129	11.277	11.277 (0.924)	1742766	200.000	222(A)	
63 1,3-Dichloropropane	76	11.392	11.384 (0.933)	2658511	200.000	194	
64 1,2-Dibromoethane	107	11.563	11.555 (1.328)	1557882	200.000	221(A)	
65 2-Hexanone	43	11.842	11.841 (0.970)	5973501	1000.00	994	
66 Chlorobenzene-D5	117	12.207	12.199 (1.000)	1024239	50.0000		
67 Chlorobenzene	112	12.228	12.220 (1.002)	3702403	200.000	187	
152 1-Chlorohexane	91	12.207	12.199 (1.000)	2149968	200.000	209(A)	
68 Ethylbenzene	106		12.263 (1.005)	2317414	200.000	211(A)	
69 1,1,1,2-Tetrachloroethane	131		12.306 (1.009)	1553036	200.000	214(A)	
71 m+p-Xylenes	106		12.449 (1.020)	5226652	400.000	389	
72 o-Xylene	106		13.021 (1.067)	2750882	200.000	198	
73 Styrene	104		13.093 (1.073)	4832829	200.000	196	
74 Bromoform	173		13.121 (1.075)	1419907	200.000	200(A)	
75 Isopropylbenzene	105		13.450 (0.867)	6282464	200.000	199	
75 Isopropyidenzene 3 76 P-Bromofluorobenzene	95		13.450 (0.887)		200.000	251(A)	
				2410438			
77 cis-1,4-Dichloro-2-Butene	53		13.936 (0.898)	824822	200.000	235(A)	
78 trans-1,4-Dichloro-2-Butene	53	14.395	14.394 (0.927)	813408	200.000	234(A)	

156 13.994 13.994 (0.901) 2046946 200.000 195

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6750.D$  Report Date: 19-Nov-2013 19:52

		AMOUNTS					
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
80 N-Propylbenzene	91	14.044	14.044 (0.905)	7355956	200.000	199	
81 1,1,2,2-Tetrachloroethane	83	14.137	14.129 (0.911)	2468293	200.000	180	
82 1,3,5-Trimethylbenzene	105	14.338	14.330 (0.924)	6153963	200.000	199	
83 2-Chlorotoluene	91	14.266	14.265 (0.919)	5169207	200.000	199	
84 1,2,3-Trichloropropane	75	14.330	14.330 (0.923)	2038127	200.000	182	
85 4-Chlorotoluene	91	14.516	14.508 (0.935)	5370161	200.000	199	
86 tert-Butylbenzene	119	14.809	14.809 (0.954)	5776545	200.000	194	
87 Pentachloroethane	117	14.831	14.830 (0.955)	1453777	200.000	209(A)	
88 1,2,4-Trimethylbenzene	105	14.917	14.916 (0.961)	6425113	200.000	199	
89 P-Isopropyltoluene	119	15.310	15.309 (0.986)	5961346	200.000	199	
90 1,3-Dichlorobenzene	146	15.410	15.402 (0.993)	3624585	200.000	194	
* 91 1,4-Dichlorobenzene-D4	152	15.524	15.517 (1.000)	763149	50.0000		
92 1,4-Dichlorobenzene	146	15.553	15.545 (1.002)	3937715	200.000	180	
93 N-Butylbenzene	91	15.982	15.974 (1.029)	5789173	200.000	199	
94 sec-Butylbenzene	105	15.088	15.080 (0.972)	6850032	200.000	199	
95 1,2-Dichlorobenzene	146	16.218	16.210 (1.045)	3659655	200.000	194	
96 1,2-Dibromo-3-Chloropropane	75	17.548	17.547 (1.130)	573524	200.000	195	
97 1,3,5-Trichlorobenzene	180	17.627	17.619 (1.135)	2792951	200.000	176	
98 Hexachlorobutadiene	225	18.735	18.727 (1.207)	1076717	200.000	161	
99 1,2,4-Trichlorobenzene	180	18.756	18.748 (1.208)	2722557	200.000	189	
100 1,2,3-Trimethylbenzene	105	15.596	15.588 (1.005)	6511394	200.000	178	
101 Naphthalene	128	19.335	19.328 (1.245)	7050788	200.000	198	
102 1,2,3-Trichlorobenzene	180	19.672	19.664 (1.267)	2572409	200.000	179	
103 Methyl Acetate	43	5.007	4.999 (0.622)	1370800	200.000	194	
104 Methylcyclohexane	83	8.660	8.660 (1.075)	1908136	200.000	196	

# QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6751.D

Report Date: 19-Nov-2013 19:53

# Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gcms-d.i\\D111913.b\\D6751.D

Lab Smp Id: WG134694-5 Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 10:41

Operator : DJP Smp Info : WG134694-5 Inst ID: gcms-d.i

Misc Info :

Comment : SW846 5030 Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 10:41 Cal File: D6751.D

Als bottle: 3 Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor 5.000 sample purged Vo

vo Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.072	2.073 (0.257)	1083460	100.000	113	
2 Chloromethane	50	2.308	2.303 (0.287)	1258156	100.000	99.3	
3 Vinyl chloride	62	2.408	2.403 (0.299)	1121792	100.000	110	
4 Bromomethane	94	2.801	2.804 (0.348)	465254	100.000	98.0	
5 Chloroethane	64	2.958	2.961 (0.368)	526083	100.000	93.5	
6 Trichlorofluoromethane	101	3.144	3.140 (0.391)	1463746	100.000	117	
7 Diethyl Ether	59	3.552	3.547 (0.441)	662797	100.000	108	
8 Tertiary-butyl alcohol	59	5.346	5.342 (0.664)	306499	500.000	528	
9 1,1-Dichloroethene	96	3.816	3.819 (0.474)	647977	100.000	117	
10 Carbon Disulfide	76	3.859	3.862 (0.479)	2718390	100.000	105	
11 Freon-113	151	3.888	3.890 (0.483)	405061	100.000	103	
12 Iodomethane	142	4.017	4.019 (0.499)	630101	100.000	108	
13 Acrolein	56	4.303	4.304 (0.535)	735246	500.000	573	
14 Methylene Chloride	84	4.696	4.691 (0.583)	902473	100.000	104	
15 Acetone	43	4.774	4.770 (0.593)	1536077	500.000	567	
16 Isobutyl Alcohol	43	8.242	8.238 (1.024)	648929	2000.00	2040	
17 trans-1,2-Dichloroethene	96	4.975	4.970 (0.618)	797163	100.000	113	
18 Allyl Chloride	41	4.531	4.527 (0.563)	1176196	100.000	120	
19 Methyl tert-butyl ether	73	5.175	5.170 (0.643)	4964738	200.000	234	
20 Acetonitrile	39	5.540	5.535 (0.688)	237849	1000.00	1170	
21 Di-isopropyl ether	45	5.818	5.821 (0.723)	2697487	100.000	116	
22 Chloroprene	53	5.947	5.942 (0.739)	1126849	100.000	119	
23 Propionitrile	54	7.949	7.945 (0.988)	1363054	1000.00	1130	
24 Methacrylonitrile	41	7.985	7.980 (0.992)	5534008	1000.00	1020	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6751.D$  Report Date: 19-Nov-2013 19:53

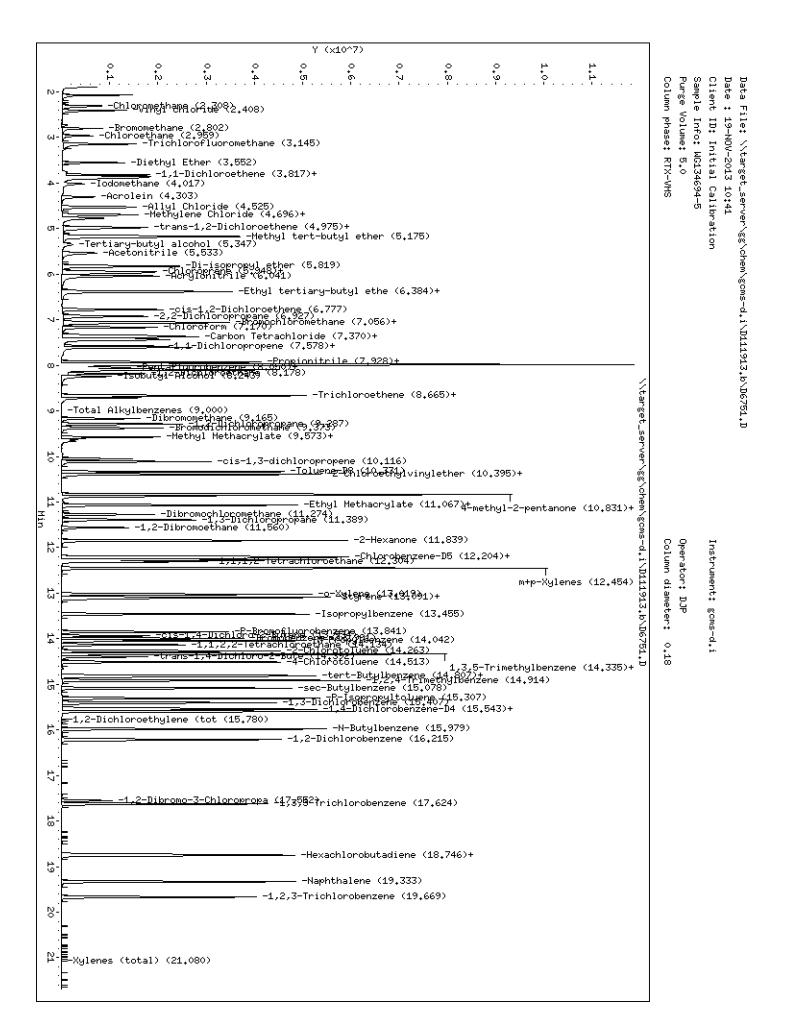
			AMOUNTS							
		QUANT SIG				CAL-AMT	ON-COL			
Comp	pounds	MASS	RT	EXP RT REL R	T RESPONSE	( ug/l)	( ug/l)	REVIEW CODE		
====		====	====		== ======	======	======	========		
	25 1,1-Dichloroethane	63	5.976	5.971 (0.742)		100.000	111			
	26 Acrylonitrile	52	6.040	6.035 (0.750)		500.000	567			
	27 Ethyl tertiary-butyl ether	59	6.383	6.379 (0.793)		100.000	116			
	28 Vinyl Acetate	43	6.383	·		100.000	106			
	29 cis-1,2-Dichloroethene	96	6.777	6.772 (0.842)		100.000	115			
	31 Methyl Methacrylate	41	9.572	9.575 (1.099)		100.000	129			
	32 2,2-Dichloropropane	77	6.927	6.929 (0.861)		100.000	107			
	33 Bromochloromethane	128	7.048	7.051 (0.876)		100.000	104			
	34 Chloroform	83	7.170	7.165 (0.891)		100.000	112			
	35 Carbon Tetrachloride	117	7.349	7.351 (0.844)		100.000	104			
	36 Tetrahydrofuran	42	7.370	7.373 (0.916)		500.000	540			
	37 Dibromofluoromethane	113	7.413	7.408 (0.921)	765224	100.000	105			
	38 1,1,1-Trichloroethane	97	7.434	7.437 (0.924)	1336755	100.000	106			
3	39 1,1-Dichloropropene	75	7.606	7.608 (0.874)		100.000	107			
4	40 2-Butanone	43	7.577	7.573 (0.941)	2471227	500.000	534			
4	41 Benzene	78	7.928	7.923 (0.910)	3362522	100.000	111			
* 4	42 Pentafluorobenzene	168	8.049	8.052 (1.000)	720061	50.0000				
4	43 Cyclohexane	56	7.063	7.065 (0.877)	1304051	100.000	108			
4	44 Ethyl Methacrylate	69	11.067	11.069 (1.271)	1241996	100.000	128			
\$ 4	45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.005)	1018501	100.000	100			
4	46 Tertiary-amyl methyl ether	73	8.099	8.102 (1.006)	2283189	100.000	117			
4	47 1,2-Dichloroethane	62	8.178	8.180 (0.939)	1247456	100.000	108			
4	48 Trichloroethene	95	8.671	8.667 (0.996)	846739	100.000	116			
* 4	49 1,4-Difluorobenzene	114	8.707	8.710 (1.000)	1094733	50.0000				
5	50 Dibromomethane	93	9.165	9.167 (1.053)	567765	100.000	110			
5	51 1,2-Dichloropropane	63	9.286	9.289 (1.067)	840716	100.000	111			
5	52 Bromodichloromethane	83	9.372	9.375 (1.076)	1202468	100.000	103			
5	53 cis-1,3-dichloropropene	75	10.116	10.118 (1.162)	1532537	100.000	105			
5	54 1,4-Dioxane	88	9.615	9.618 (1.104)	328680	2000.00	2010			
\$ 5	55 Toluene-D8	98	10.330	10.333 (1.186)	2666295	100.000	106			
5	56 2-Chloroethylvinylether	63	10.394	10.390 (1.194)	293033	100.000	100			
5	57 Toluene	92	10.394	10.390 (1.194)	2125408	100.000	107			
5	58 4-methyl-2-pentanone	43	10.831	10.826 (1.244)	4640737	500.000	516			
5	59 Tetrachloroethene	164	10.845	10.840 (0.889)	660072	100.000	109			
6	60 trans-1,3-Dichloropropene	75	10.874	10.876 (1.249)	1346048	100.000	103			
6	61 1,1,2-Trichloroethane	83	11.059	11.062 (1.270)	669583	100.000	106			
6	62 Dibromochloromethane	129	11.274	11.277 (0.924)	905960	100.000	117			
6	63 1,3-Dichloropropane	76	11.388		1476548	100.000	109			
6	64 1,2-Dibromoethane	107	11.560	11.555 (1.328)	850223	100.000	113			
6	65 2-Hexanone	43		11.841 (0.970)		500.000	522			
* 6	66 Chlorobenzene-D5	117	12.203	12.199 (1.000)		50.0000				
6	67 Chlorobenzene	112	12.225			100.000	106			
	52 1-Chlorohexane	91		12.199 (1.000)		100.000	114			
	68 Ethylbenzene	106		12.263 (1.005)		100.000	115			
	59 1,1,1,2-Tetrachloroethane	131		12.306 (1.008)		100.000	114			
	71 m+p-Xylenes	106		12.449 (1.021)		200.000	218			
	72 o-Xylene	106		13.021 (1.067)		100.000	105			
	73 Styrene	104		13.093 (1.073)		100.000	107			
	74 Bromoform	173		13.121 (1.075)		100.000	101			
	75 Isopropylbenzene	105		13.450 (0.867)		100.000	104			
	75 Isopropylbenzene 76 P-Bromofluorobenzene	95		13.843 (1.590)		100.000	117			
	77 cis-1,4-Dichloro-2-Butene	53		13.936 (0.898)		100.000	123			
	77 CIS-1,4-Dichloro-2-Butene 78 trans-1,4-Dichloro-2-Butene	53		14.394 (0.927)						
	78 trans-1,4-Dichioro-2-Butene 79 Bromobenzene					100.000	121			
- /	12 DIOMODENZENE	156	13.991	13.994 (0.901)	1045414	100.000	110			

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6751.D$  Report Date: 19-Nov-2013 19:53

104 Methylcyclohexane

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		=======	======	======	========
80 N-Propylbenzene	91	14.041	14.044 (0.905)	4115076	100.000	104	
81 1,1,2,2-Tetrachloroethane	83	14.134	14.129 (0.911)	1290614	100.000	104	
82 1,3,5-Trimethylbenzene	105	14.334	14.330 (0.924)	3327624	100.000	104	
83 2-Chlorotoluene	91	14.263	14.265 (0.919)	2688380	100.000	102	
84 1,2,3-Trichloropropane	75	14.327	14.330 (0.923)	1039459	100.000	102	
85 4-Chlorotoluene	91	14.513	14.508 (0.935)	2823247	100.000	103	
86 tert-Butylbenzene	119	14.806	14.809 (0.954)	2987247	100.000	110	
87 Pentachloroethane	117	14.828	14.830 (0.955)	709429	100.000	113	
88 1,2,4-Trimethylbenzene	105	14.913	14.916 (0.961)	3515295	100.000	104	
89 P-Isopropyltoluene	119	15.307	15.309 (0.986)	3214180	100.000	104	
90 1,3-Dichlorobenzene	146	15.407	15.402 (0.993)	1884304	100.000	111	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	691537	50.0000		
92 1,4-Dichlorobenzene	146	15.543	15.545 (1.001)	2076987	100.000	105	
93 N-Butylbenzene	91	15.979	15.974 (1.029)	3164681	100.000	105	
94 sec-Butylbenzene	105	15.085	15.080 (0.972)	3698743	100.000	104	
95 1,2-Dichlorobenzene	146	16.215	16.210 (1.045)	1928280	100.000	113	
96 1,2-Dibromo-3-Chloropropane	75	17.552	17.547 (1.131)	292867	100.000	110	
97 1,3,5-Trichlorobenzene	180	17.623	17.619 (1.135)	1511158	100.000	105	
98 Hexachlorobutadiene	225	18.732	18.727 (1.207)	592857	100.000	97.8	
99 1,2,4-Trichlorobenzene	180	18.753	18.748 (1.208)	1493432	100.000	114	
100 1,2,3-Trimethylbenzene	105	15.593	15.588 (1.005)	3587561	100.000	108	
101 Naphthalene	128	19.332	19.328 (1.246)	4174302	100.000	107	
102 1,2,3-Trichlorobenzene	180	19.668	19.664 (1.267)	1434447	100.000	110	
103 Methyl Acetate	43	5.003	4.999 (0.622)	871126	100.000	118	

83 8.657 8.660 (1.076) 1076182 100.000 106



Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6752.D

Report Date: 19-Nov-2013 19:53

# Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gcms-d.i\\D111913.b\\D6752.D

Lab Smp Id: WG134694-4 Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 11:13

Operator : DJP Smp Info : WG134694-4 Inst ID: gcms-d.i

Misc Info:

Comment : SW846 5030 Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 11:13 Cal File: D6752.D

Als bottle: 4 Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged DF

Vo

Local Compound Variable Cpnd Variable

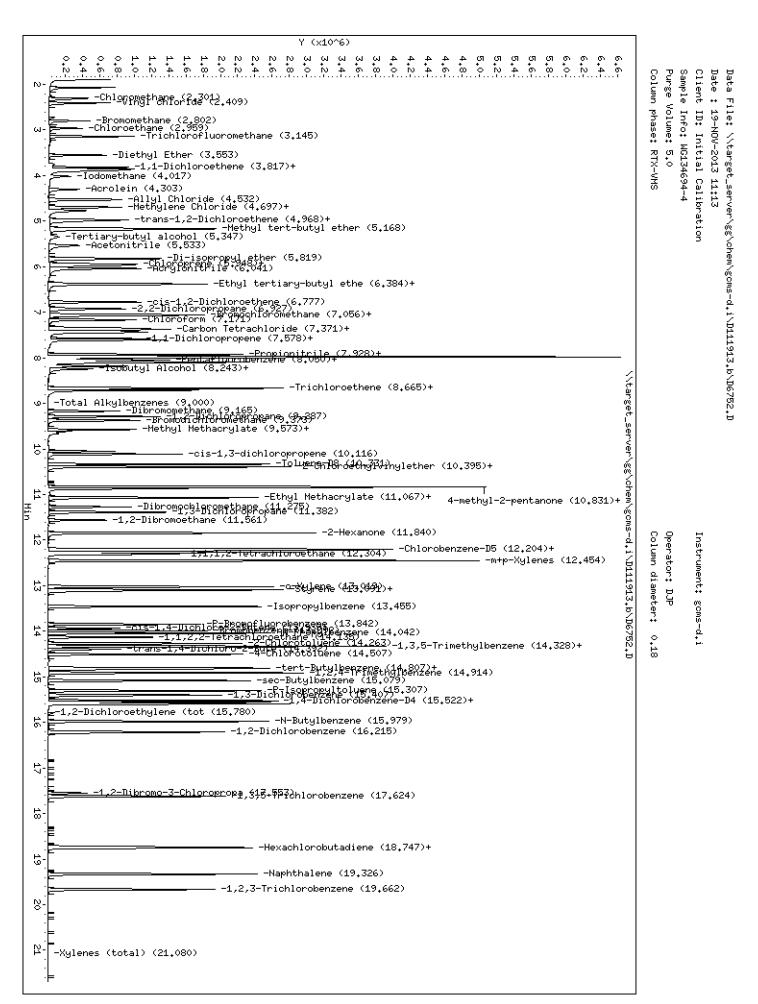
					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.072	2.073 (0.257)	584603	50.0000	55.6	
2 Chloromethane	50	2.301	2.303 (0.286)	680748	50.0000	49.0	
3 Vinyl chloride	62	2.408	2.403 (0.299)	613470	50.0000	54.8	
4 Bromomethane	94	2.801	2.804 (0.348)	256454	50.0000	49.3	
5 Chloroethane	64	2.959	2.961 (0.368)	311266	50.0000	50.5	
6 Trichlorofluoromethane	101	3.144	3.140 (0.391)	715927	50.0000	52.3	
7 Diethyl Ether	59	3.552	3.547 (0.441)	346785	50.0000	51.4	
8 Tertiary-butyl alcohol	59	5.347	5.342 (0.664)	162531	250.000	222	
9 1,1-Dichloroethene	96	3.817	3.819 (0.474)	327368	50.0000	54.0	
10 Carbon Disulfide	76	3.860	3.862 (0.480)	1379424	50.0000	44.6	
11 Freon-113	151	3.888	3.890 (0.483)	218160	50.0000	46.9	
12 Iodomethane	142	4.017	4.019 (0.499)	332465	50.0000	51.9	
13 Acrolein	56	4.303	4.304 (0.535)	380050	250.000	270	
14 Methylene Chloride	84	4.696	4.691 (0.583)	476029	50.0000	45.9	
15 Acetone	43	4.768	4.770 (0.592)	748040	250.000	252	
16 Isobutyl Alcohol	43	8.243	8.238 (1.024)	333928	1000.00	956	
17 trans-1,2-Dichloroethene	96	4.968	4.970 (0.617)	415645	50.0000	53.8	
18 Allyl Chloride	41	4.532	4.527 (0.563)	638759	50.0000	59.7	
19 Methyl tert-butyl ether	73	5.168	5.170 (0.642)	2565774	100.000	110	
20 Acetonitrile	39	5.540	5.535 (0.688)	115737	500.000	521	
21 Di-isopropyl ether	45	5.819	5.821 (0.723)	1437603	50.0000	56.3	
22 Chloroprene	53	5.947	5.942 (0.739)	595310	50.0000	57.5	
23 Propionitrile	54	7.949	7.945 (0.988)	703054	500.000	531	
24 Methacrylonitrile	41	7.978	7.980 (0.991)	3209138	500.000	541	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6752.D$  Report Date: 19-Nov-2013 19:53

						AMOUN	ITS	
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		=======	======	======	======	========
25 1,1-Dichloroethane	63	5.969	5.971	(0.742)	796292	50.0000	53.4	
26 Acrylonitrile	52	6.040	6.035	(0.750)	797316	250.000	269	
27 Ethyl tertiary-butyl ether	59	6.383	6.379	(0.793)	1294501	50.0000	55.3	
28 Vinyl Acetate	43	6.383	6.386	(0.733)	980036	50.0000	50.4	
29 cis-1,2-Dichloroethene	96	6.777	6.772	(0.842)	460824	50.0000	54.2	
31 Methyl Methacrylate	41	9.572	9.575	(1.099)	451246	50.0000	61.5	
32 2,2-Dichloropropane	77	6.927	6.929	(0.861)	605911	50.0000	47.9	
33 Bromochloromethane	128	7.048	7.051	(0.876)	199842	50.0000	52.4	
34 Chloroform	83	7.163	7.165	(0.890)	792647	50.0000	53.0	
35 Carbon Tetrachloride	117	7.349	7.351	(0.844)	527391	50.0000	48.0	
36 Tetrahydrofuran	42	7.370	7.373	(0.916)	779360	250.000	250	
\$ 37 Dibromofluoromethane	113	7.406	7.408	(0.920)	398735	50.0000	49.8	
38 1,1,1-Trichloroethane	97	7.435	7.437	(0.924)	677203	50.0000	49.1	
39 1,1-Dichloropropene	75	7.606	7.608	(0.874)	593280	50.0000	50.4	
40 2-Butanone	43	7.578	7.573	(0.941)	1290578	250.000	255	
41 Benzene	78	7.928	7.923	(0.910)	1786847	50.0000	54.3	
* 42 Pentafluorobenzene	168	8.049	8.052	(1.000)	789118	50.0000		
43 Cyclohexane	56	7.063	7.065	(0.877)	667115	50.0000	50.2	
44 Ethyl Methacrylate	69	11.067	11.069	(1.271)	641498	50.0000	60.7	
\$ 45 1,2-Dichloroethane-D4	65	8.092	8.095	(1.005)	539579	50.0000	48.4	
46 Tertiary-amyl methyl ether	73	8.100	8.102	(1.006)	1167559	50.0000	54.7	
47 1,2-Dichloroethane	62	8.178	8.180	(0.939)	651330	50.0000	51.9	
48 Trichloroethene	95	8.664	8.667	(0.995)	415394	50.0000	52.7	
* 49 1,4-Difluorobenzene	114	8.707	8.710	(1.000)	1188806	50.0000		
50 Dibromomethane	93	9.165	9.167	(1.053)	284335	50.0000	50.6	
51 1,2-Dichloropropane	63	9.294	9.289	(1.067)	438179	50.0000	53.2	
52 Bromodichloromethane	83	9.372	9.375	(1.076)	610947	50.0000	48.5	
53 cis-1,3-dichloropropene	75	10.116	10.118	(1.162)	778549	50.0000	49.5	
54 1,4-Dioxane	88	9.615	9.618	(1.104)	198592	1000.00	964	
\$ 55 Toluene-D8	98	10.330	10.333	(1.186)	1470366	50.0000	53.8	
56 2-Chloroethylvinylether	63	10.395	10.390	(1.194)	150893	50.0000	48.1	
57 Toluene	92	10.395	10.390	(1.194)	1104556	50.0000	50.7	
58 4-methyl-2-pentanone	43	10.831	10.826	(1.244)	2578756	250.000	239	
59 Tetrachloroethene	164	10.845	10.840	(0.889)	349595	50.0000	53.8	
60 trans-1,3-Dichloropropene	75	10.874	10.876	(1.249)	686487	50.0000	48.8	
61 1,1,2-Trichloroethane	83		11.062		350670	50.0000	51.4	
62 Dibromochloromethane	129		11.277		448160	50.0000	54.3	
63 1,3-Dichloropropane	76		11.384		759118	50.0000	52.5	
64 1,2-Dibromoethane	107		11.555		427257	50.0000	52.4	
65 2-Hexanone	43	11.839			1849098	250.000	232	
* 66 Chlorobenzene-D5	117		12.199		1078530	50.0000		
67 Chlorobenzene	112		12.220		1072219	50.0000	51.5	
152 1-Chlorohexane	91		12.199		572530	50.0000	52.8	
68 Ethylbenzene	106		12.263		620795	50.0000	53.7	
69 1,1,1,2-Tetrachloroethane	131		12.306		405323	50.0000	52.9	
71 m+p-Xylenes	106		12.449		1492277	100.000	104	
72 o-Xylene	106	13.019			702498	50.0000	48.6	
73 Styrene	104		13.093		1273751	50.0000	49.4	
74 Bromoform	173		13.121		330178	50.0000	46.1	
75 Isopropylbenzene	105		13.450		1715772	50.0000	47.0	
\$ 76 P-Bromofluorobenzene	95		13.843		582026	50.0000	52.4	
77 cis-1,4-Dichloro-2-Butene	53		13.936		177896	50.0000	57.3	
78 trans-1,4-Dichloro-2-Buten			14.394		174406	50.0000	56.7	
79 Bromobenzene	156	13.991	13.994	(0.901)	509674	50.0000	54.9	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6752.D$  Report Date: 19-Nov-2013 19:53

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
80 N-Propylbenzene	91	14.041	14.044 (0.905)	2060849	50.0000	46.5	
81 1,1,2,2-Tetrachloroethane	83	14.127	14.129 (0.910)	633420	50.0000	52.1	
82 1,3,5-Trimethylbenzene	105	14.327	14.330 (0.923)	1614470	50.0000	46.6	
83 2-Chlorotoluene	91	14.263	14.265 (0.919)	1315117	50.0000	47.8	
84 1,2,3-Trichloropropane	75	14.327	14.330 (0.923)	519206	50.0000	52.2	
85 4-Chlorotoluene	91	14.506	14.508 (0.935)	1366290	50.0000	47.2	
86 tert-Butylbenzene	119	14.806	14.809 (0.954)	1408523	50.0000	52.4	
87 Pentachloroethane	117	14.828	14.830 (0.955)	341913	50.0000	55.5	
88 1,2,4-Trimethylbenzene	105	14.914	14.916 (0.961)	1697321	50.0000	46.2	
89 P-Isopropyltoluene	119	15.307	15.309 (0.986)	1503033	50.0000	45.8	
90 1,3-Dichlorobenzene	146	15.407	15.402 (0.993)	905028	50.0000	54.7	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	676282	50.0000		
92 1,4-Dichlorobenzene	146	15.543	15.545 (1.001)	973956	50.0000	50.2	
93 N-Butylbenzene	91	15.979	15.974 (1.029)	1497254	50.0000	45.7	
94 sec-Butylbenzene	105	15.078	15.080 (0.971)	1761318	50.0000	46.1	
95 1,2-Dichlorobenzene	146	16.215	16.210 (1.045)	903699	50.0000	54.2	
96 1,2-Dibromo-3-Chloropropane	75	17.545	17.547 (1.130)	128098	50.0000	49.4	
97 1,3,5-Trichlorobenzene	180	17.624	17.619 (1.135)	766248	50.0000	54.6	
98 Hexachlorobutadiene	225	18.725	18.727 (1.206)	294102	50.0000	49.6	
99 1,2,4-Trichlorobenzene	180	18.753	18.748 (1.208)	728791	50.0000	57.0	
100 1,2,3-Trimethylbenzene	105	15.593	15.588 (1.005)	1772899	50.0000	54.6	
101 Naphthalene	128	19.325	19.328 (1.245)	2091559	50.0000	45.2	
102 1,2,3-Trichlorobenzene	180	19.668	19.664 (1.267)	711019	50.0000	55.8	
103 Methyl Acetate	43	5.004	4.999 (0.622)	431468	50.0000	53.2	
104 Methylcyclohexane	83	8.664	8.660 (1.076)	589599	50.0000	52.7	



Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6753.D

Report Date: 19-Nov-2013 19:53

# Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6753.D

Lab Smp Id:  $WG134\overline{6}94\overline{-3}$ Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 11:46

Operator : DJP Smp Info : WG134694-3 Inst ID: gcms-d.i

Misc Info :

Comment : SW846 5030 Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 11:46 Cal File: D6753.D

Als bottle: 5 Calibration Sample, Level: 3

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor
5.000 sample purged
Local Compound N

Vo Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.073	2.073 (0.257)	225714	20.0000	19.9	
2 Chloromethane	50	2.301	2.303 (0.286)	278124	20.0000	18.6	
3 Vinyl chloride	62	2.409	2.403 (0.299)	244089	20.0000	20.2	
4 Bromomethane	94	2.802	2.804 (0.348)	103583	20.0000	18.4	
5 Chloroethane	64	2.959	2.961 (0.368)	129560	20.0000	19.5	
6 Trichlorofluoromethane	101	3.145	3.140 (0.391)	282919	20.0000	19.2	
7 Diethyl Ether	59	3.553	3.547 (0.441)	134915	20.0000	18.5	
8 Tertiary-butyl alcohol	59	5.340	5.342 (0.663)	73300	100.000	87.1	
9 1,1-Dichloroethene	96	3.817	3.819 (0.474)	136932	20.0000	21.0	
10 Carbon Disulfide	76	3.860	3.862 (0.480)	577581	20.0000	17.6	
11 Freon-113	151	3.889	3.890 (0.483)	90354	20.0000	17.9	
12 Iodomethane	142	4.017	4.019 (0.499)	111179	20.0000	16.2	
13 Acrolein	56	4.303	4.304 (0.535)	139525	100.000	92.0	
14 Methylene Chloride	84	4.697	4.691 (0.583)	207315	20.0000	17.7	
15 Acetone	43	4.768	4.770 (0.592)	290454	100.000	90.8	
16 Isobutyl Alcohol	43	8.243	8.238 (1.024)	124208	400.000	330	
17 trans-1,2-Dichloroethene	96	4.968	4.970 (0.617)	171626	20.0000	20.6	
18 Allyl Chloride	41	4.532	4.527 (0.563)	242877	20.0000	21.1	
19 Methyl tert-butyl ether	73	5.176	5.170 (0.643)	1007738	40.0000	40.1	
20 Acetonitrile	39	5.540	5.535 (0.688)	40141	200.000	168	
21 Di-isopropyl ether	45	5.819	5.821 (0.723)	537631	20.0000	19.5	
22 Chloroprene	53	5.948	5.942 (0.739)	226575	20.0000	20.3	
23 Propionitrile	54	7.950	7.945 (0.988)	256596	200.000	180	
24 Methacrylonitrile	41	7.979	7.980 (0.991)	1313719	200.000	205	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6753.D$  Report Date: 19-Nov-2013 19:53

			AMOUNTS							
		QUANT SIG					CAL-AMT	ON-COL		
Compounds		MASS	RT	EXP RT R	EL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE	
===		====	====	=======================================	=====	======	======	======	========	
	25 1,1-Dichloroethane	63	5.969	5.971 (0.	742)	323419	20.0000	20.1		
	26 Acrylonitrile	52	6.041	6.035 (0.	750)	302800	100.000	94.7		
	27 Ethyl tertiary-butyl ether	59	6.384	6.379 (0.	793)	486150	20.0000	19.3		
	28 Vinyl Acetate	43	6.384	6.386 (0.	733)	356372	20.0000	17.5		
	29 cis-1,2-Dichloroethene	96	6.777	6.772 (0.	842)	184474	20.0000	20.1		
	31 Methyl Methacrylate	41	9.573	9.575 (1.	099)	151970	20.0000	19.5		
	32 2,2-Dichloropropane	77	6.927	6.929 (0.	861)	236461	20.0000	17.8		
	33 Bromochloromethane	128	7.049	7.051 (0.	876)	85056	20.0000	20.7		
	34 Chloroform	83	7.171	7.165 (0.	891)	321838	20.0000	20.0		
	35 Carbon Tetrachloride	117	7.349	7.351 (0.	844)	213222	20.0000	18.8		
	36 Tetrahydrofuran	42	7.378	7.373 (0.	917)	280829	100.000	84.2		
\$	37 Dibromofluoromethane	113	7.407	7.408 (0.	920)	157820	20.0000	18.3		
	38 1,1,1-Trichloroethane	97	7.435	7.437 (0.	924)	280622	20.0000	18.9		
	39 1,1-Dichloropropene	75	7.607	7.608 (0.	874)	247657	20.0000	19.4		
	40 2-Butanone	43	7.578	7.573 (0.	941)	466834	100.000	85.8		
	41 Benzene	78	7.928	7.923 (0.	911)	731639	20.0000	20.9		
*	42 Pentafluorobenzene	168	8.050	8.052 (1.	000)	850897	50.0000			
	43 Cyclohexane	56	7.063	7.065 (0.	877)	272158	20.0000	18.9		
	44 Ethyl Methacrylate	69	11.075	11.069 (1.	272)	222565	20.0000	19.8		
\$	45 1,2-Dichloroethane-D4	65	8.093	8.095 (1.	005)	218381	20.0000	18.2		
	46 Tertiary-amyl methyl ether	73	8.100	8.102 (1.	006)	437498	20.0000	19.0		
	47 1,2-Dichloroethane	62	8.179	8.180 (0.	939)	256890	20.0000	19.3		
	48 Trichloroethene	95	8.665	8.667 (0.	995)	174187	20.0000	20.8		
*	49 1,4-Difluorobenzene	114	8.708	8.710 (1.	000)	1263101	50.0000			
	50 Dibromomethane	93	9.165	9.167 (1.	053)	113920	20.0000	19.1		
	51 1,2-Dichloropropane	63	9.287	9.289 (1.	067)	172570	20.0000	19.7		
	52 Bromodichloromethane	83	9.373	9.375 (1.		239534	20.0000	18.5		
	53 cis-1,3-dichloropropene	75	10.116	10.118 (1.		295353	20.0000	18.0		
	54 1,4-Dioxane	88	9.616	9.618 (1.		105240	400.000	418		
Ś	55 Toluene-D8	98		10.333 (1.		586194	20.0000	20.2		
7	56 2-Chloroethylvinylether	63	10.388	10.390 (1.		62206	20.0000	19.4		
	57 Toluene	92	10.395	10.390 (1.		449704	20.0000	19.1		
	58 4-methyl-2-pentanone	43		10.826 (1.		1008542	100.000	86.0		
	59 Tetrachloroethene	164		10.840 (0.		147273	20.0000	21.8		
	60 trans-1,3-Dichloropropene	75		10.876 (1.		260351	20.0000	18.1		
	61 1,1,2-Trichloroethane	83	11.060	11.062 (1.		137746	20.0000	19.0		
	62 Dibromochloromethane	129		11.002 (1.		168354	20.0000	19.6		
	63 1,3-Dichloropropane	76	11.389	11.384 (0.		301063	20.0000	20.1		
	64 1,2-Dibromoethane	107		11.555 (1.		165796	20.0000	19.1		
	65 2-Hexanone	43		11.841 (0.		684840	100.000	83.5		
*	66 Chlorobenzene-D5	117		12.199 (1.		1119831	50.0000	03.3		
	67 Chlorobenzene	112		12.199 (1.			20.0000	20.3		
	152 1-Chlorohexane					438297				
-		91		12.199 (1.		233511	20.0000	20.8		
	68 Ethylbenzene	106		12.263 (1.		255542	20.0000	21.3		
	69 1,1,1,2-Tetrachloroethane	131		12.306 (1.		157696	20.0000	19.8		
	71 m+p-Xylenes	106		12.449 (1.		609136	40.0000	39.1		
	72 o-Xylene	106		13.021 (1.		271534	20.0000	18.6		
	73 Styrene	104		13.093 (1.		487530	20.0000	18.4		
	74 Bromoform	173		13.121 (1.		118518	20.0000	17.5		
	75 Isopropylbenzene	105		13.450 (0.		680581	20.0000	17.8		
\$	76 P-Bromofluorobenzene	95		13.843 (1.		220794	20.0000	18.7		
	77 cis-1,4-Dichloro-2-Butene	53		13.936 (0.		59081	20.0000	18.8		
	78 trans-1,4-Dichloro-2-Butene			14.394 (0.		56942	20.0000	18.3		
	79 Bromobenzene	156	13.992	13.994 (0.	901)	201411	20.0000	21.4		

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6753.D$  Report Date: 19-Nov-2013 19:53

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
80 N-Propylbenzene	91	14.042	14.044 (0.905)	841692	20.0000	17.9	
81 1,1,2,2-Tetrachloroethane	83	14.128	14.129 (0.910)	245540	20.0000	20.0	
82 1,3,5-Trimethylbenzene	105	14.328	14.330 (0.923)	646439	20.0000	18.1	
83 2-Chlorotoluene	91	14.263	14.265 (0.919)	511205	20.0000	18.2	
84 1,2,3-Trichloropropane	75	14.328	14.330 (0.923)	205660	20.0000	20.4	
85 4-Chlorotoluene	91	14.507	14.508 (0.935)	540380	20.0000	18.3	
86 tert-Butylbenzene	119	14.807	14.809 (0.954)	548002	20.0000	19.3	
87 Pentachloroethane	117	14.828	14.830 (0.955)	124933	20.0000	20.0	
88 1,2,4-Trimethylbenzene	105	14.914	14.916 (0.961)	673928	20.0000	17.8	
89 P-Isopropyltoluene	119	15.307	15.309 (0.986)	581947	20.0000	17.6	
90 1,3-Dichlorobenzene	146	15.400	15.402 (0.992)	355878	20.0000	21.2	
* 91 1,4-Dichlorobenzene-D4	152	15.522	15.517 (1.000)	684775	50.0000		
92 1,4-Dichlorobenzene	146	15.543	15.545 (1.001)	393361	20.0000	20.0	
93 N-Butylbenzene	91	15.980	15.974 (1.029)	587294	20.0000	17.6	
94 sec-Butylbenzene	105	15.079	15.080 (0.971)	704335	20.0000	18.1	
95 1,2-Dichlorobenzene	146	16.215	16.210 (1.045)	355332	20.0000	21.0	
96 1,2-Dibromo-3-Chloropropane	75	17.553	17.547 (1.131)	42450	20.0000	16.5	
97 1,3,5-Trichlorobenzene	180	17.624	17.619 (1.135)	288487	20.0000	20.3	
98 Hexachlorobutadiene	225	18.725	18.727 (1.206)	123089	20.0000	20.5	
99 1,2,4-Trichlorobenzene	180	18.754	18.748 (1.208)	277158	20.0000	21.4	
100 1,2,3-Trimethylbenzene	105	15.586	15.588 (1.004)	678194	20.0000	20.6	
101 Naphthalene	128	19.326	19.328 (1.245)	756250	20.0000	15.4	
102 1,2,3-Trichlorobenzene	180	19.669	19.664 (1.267)	273145	20.0000	21.2	
103 Methyl Acetate	43	5.004	4.999 (0.622)	158809	20.0000	18.1	
104 Methylcyclohexane	83	8.665	8.660 (1.076)	217099	20.0000	17.8	

Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6754.D

Report Date: 19-Nov-2013 19:53

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6754.D

Lab Smp Id: WG134694-2 Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 12:19

Operator : DJP Smp Info : WG134694-2 Inst ID: gcms-d.i

Misc Info :

Comment : SW846 5030
Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:19 Cal File: D6754.D

Als bottle: 6 Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor 5.000 sample purged Vo

Local Compound Variable Cpnd Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.075	2.073 (0.258)	51369	5.00000	4.9	
2 Chloromethane	50	2.304	2.303 (0.286)	75491	5.00000	5.4	
3 Vinyl chloride	62	2.411	2.403 (0.299)	57301	5.00000	5.1	
4 Bromomethane	94	2.804	2.804 (0.348)	28466	5.00000	5.5	
5 Chloroethane	64	2.961	2.961 (0.368)	33314	5.00000	5.4	
6 Trichlorofluoromethane	101	3.147	3.140 (0.391)	64455	5.00000	4.7	
7 Diethyl Ether	59	3.555	3.547 (0.442)	33583	5.00000	5.0	
8 Tertiary-butyl alcohol	59	5.350	5.342 (0.664)	24824	25.0000	32.6	
9 1,1-Dichloroethene	96	3.819	3.819 (0.474)	27892	5.00000	4.6	
10 Carbon Disulfide	76	3.862	3.862 (0.480)	105360	5.00000	5.1	
11 Freon-113	151	3.891	3.890 (0.483)	19201	5.00000	5.1	
12 Iodomethane	142	4.020	4.019 (0.499)	23533	5.00000	3.8	
13 Acrolein	56	4.306	4.304 (0.535)	32858	25.0000	23.4	
14 Methylene Chloride	84	4.699	4.691 (0.584)	64734	5.00000	6.0	
15 Acetone	43	4.778	4.770 (0.593)	64752	25.0000	21.8	
16 Isobutyl Alcohol	43	8.245	8.238 (1.024)	39163	100.000	112	
17 trans-1,2-Dichloroethene	96	4.971	4.970 (0.617)	36203	5.00000	4.7	
18 Allyl Chloride	41	4.527	4.527 (0.562)	53294	5.00000	5.0	
19 Methyl tert-butyl ether	73	5.178	5.170 (0.643)	216077	10.0000	9.3	
20 Acetonitrile	39	5.543	5.535 (0.688)	8406	50.0000	37.9	
21 Di-isopropyl ether	45	5.829	5.821 (0.724)	117860	5.00000	4.6	
22 Chloroprene	53	5.950	5.942 (0.739)	46481	5.00000	4.5	
23 Propionitrile	54	7.952	7.945 (0.988)	63440	50.0000	48.0	
24 Methacrylonitrile	41	7.981	7.980 (0.991)	327038	50.0000	55.2	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6754.D$  Report Date: 19-Nov-2013 19:53

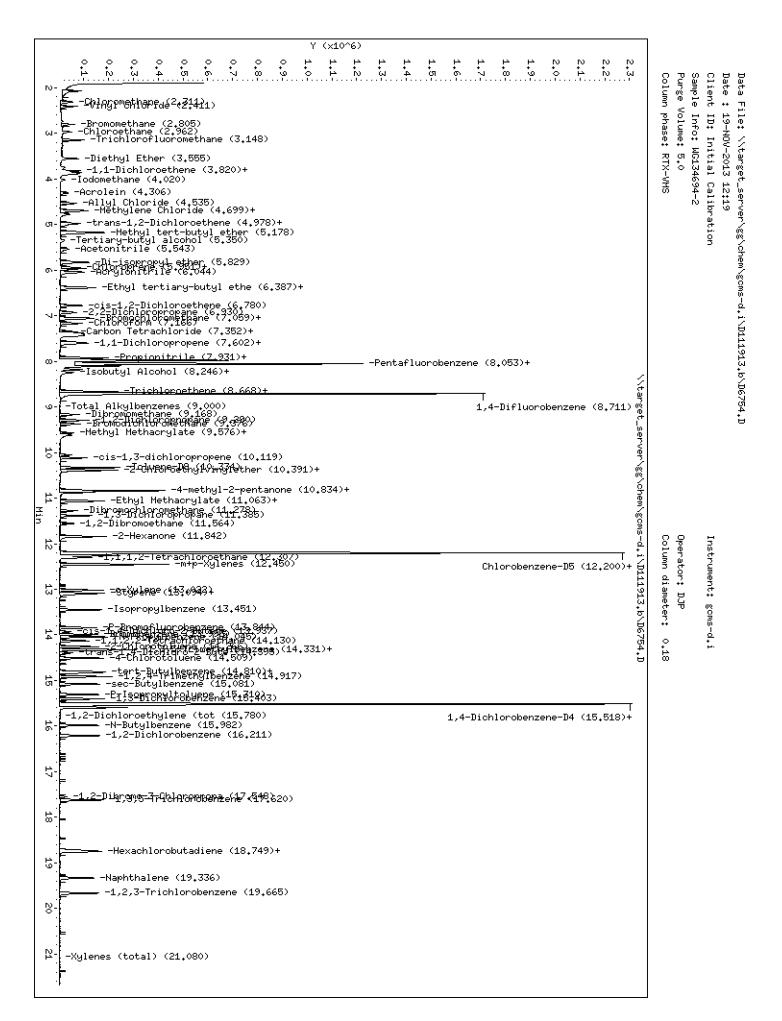
							AMOUN	ITS	
			QUANT SIG				CAL-AMT	ON-COL	
Co	mpo	unds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
==	===	=======================================	====	====		======	======	======	========
	25	1,1-Dichloroethane	63	5.972	5.971 (0.742)	69713	5.00000	4.7	
	26	Acrylonitrile	52	6.043	6.035 (0.750)	70410	25.0000	23.8	
	27	Ethyl tertiary-butyl ether	59	6.386	6.379 (0.793)	106908	5.00000	4.6	
	28	Vinyl Acetate	43	6.393	6.386 (0.734)	65697	5.00000	3.7	
	29	cis-1,2-Dichloroethene	96	6.780	6.772 (0.842)	38742	5.00000	4.6	
	31	Methyl Methacrylate	41	9.575	9.575 (1.099)	27546	5.00000	3.8	
	32	2,2-Dichloropropane	77	6.930	6.929 (0.861)	44501	5.00000	4.2	
	33	Bromochloromethane	128	7.051	7.051 (0.876)	18991	5.00000	5.0	
	34	Chloroform	83	7.166	7.165 (0.890)	69974	5.00000	4.7	
	35	Carbon Tetrachloride	117	7.344	7.351 (0.843)	35809	5.00000	4.1	
	36	Tetrahydrofuran	42	7.380	7.373 (0.917)	61427	25.0000	20.8	
\$	37	Dibromofluoromethane	113	7.409	7.408 (0.920)	40126	5.00000	5.0	
	38	1,1,1-Trichloroethane	97	7.437	7.437 (0.924)	52530	5.00000	3.9	
	39	1,1-Dichloropropene	75	7.609	7.608 (0.874)	45999	5.00000	3.4	
	40	2-Butanone	43	7.580	7.573 (0.941)	98215	25.0000	19.8	
	41	Benzene	78	7.931	7.923 (0.911)	150721	5.00000	4.6	
*	42	Pentafluorobenzene	168	8.052	8.052 (1.000)	788550	50.0000		
	43	Cyclohexane	56	7.066	7.065 (0.877)	42400	5.00000	3.1	
	44	Ethyl Methacrylate	69	11.070	11.069 (1.271)	39443	5.00000	3.8	
\$	45	1,2-Dichloroethane-D4	65	8.095	8.095 (1.005)	57709	5.00000	5.2	
	46	Tertiary-amyl methyl ether	73	8.102	8.102 (1.006)	97554	5.00000	4.6	
	47	1,2-Dichloroethane	62	8.181	8.180 (0.939)	58858	5.00000	4.7	
	48	Trichloroethene	95	8.667	8.667 (0.995)	34418	5.00000	4.4	
*	49	1,4-Difluorobenzene	114	8.710	8.710 (1.000)	1181713	50.0000		
	50	Dibromomethane	93	9.168	9.167 (1.053)	26088	5.00000	4.7	
	51	1,2-Dichloropropane	63	9.289	9.289 (1.066)	36454	5.00000	4.4	
	52	Bromodichloromethane	83	9.375	9.375 (1.076)	49589	5.00000	4.8	
	53	cis-1,3-dichloropropene	75	10.119	10.118 (1.162)	56567	5.00000	4.1	
	54	1,4-Dioxane	88	9.618	9.618 (1.104)	42846	100.000	150	
\$	55	Toluene-D8	98	10.333	10.333 (1.186)	137620	5.00000	5.1	
	56	2-Chloroethylvinylether	63	10.390	10.390 (1.193)	12205	5.00000	5.0	
	57	Toluene	92	10.390	10.390 (1.193)	91257	5.00000	3.7	
	58	4-methyl-2-pentanone	43	10.834	10.826 (1.244)	208763	25.0000	24.9	
	59	Tetrachloroethene	164	10.841	10.840 (0.889)	30034	5.00000	4.7	
	60	trans-1,3-Dichloropropene	75	10.869	10.876 (1.248)	52429	5.00000	4.7	
	61	1,1,2-Trichloroethane	83	11.063	11.062 (1.270)	32716	5.00000	4.8	
	62	Dibromochloromethane	129	11.277	11.277 (0.924)	34518	5.00000	4.2	
	63	1,3-Dichloropropane	76	11.384	11.384 (0.933)	68475	5.00000	4.8	
	64	1,2-Dibromoethane	107	11.563	11.555 (1.328)	37359	5.00000	4.6	
	65	2-Hexanone	43	11.842	11.841 (0.971)	125411	25.0000	24.5	
*	66	Chlorobenzene-D5	117	12.199	12.199 (1.000)	1059675	50.0000		
	67	Chlorobenzene	112	12.221	12.220 (1.002)	97440	5.00000	4.8	
	152	1-Chlorohexane	91		12.199 (1.000)	44758	5.00000	4.2	
	68	Ethylbenzene	106	12.264	12.263 (1.005)	49809	5.00000	4.4	
		1,1,1,2-Tetrachloroethane	131		12.306 (1.009)	33207	5.00000	4.4	
		m+p-Xylenes	106	12.450		120203	10.0000	6.1	
	72	o-Xylene	106		13.021 (1.067)	46685	5.00000	4.0	
		Styrene	104		13.093 (1.073)	85584	5.00000	3.6	
		Bromoform	173		13.121 (1.075)	22863	5.00000	5.4	
		Isopropylbenzene	105		13.450 (0.867)	114638	5.00000	4.5	
\$		P-Bromofluorobenzene	95		13.843 (1.589)	49906	5.00000	4.5	
		cis-1,4-Dichloro-2-Butene	53		13.936 (0.898)	12117	5.00000	4.0	
		trans-1,4-Dichloro-2-Butene	53		14.394 (0.928)	12337	5.00000	4.2	
	. 5	,		1			_ , , ,		

156 13.994 13.994 (0.902) 43781 5.00000 4.9

79 Bromobenzene

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6754.D$  Report Date: 19-Nov-2013 19:53

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
80 N-Propylbenzene	91	14.044	14.044 (0.905)	155628	5.00000	4.7	
81 1,1,2,2-Tetrachloroethane	83	14.130	14.129 (0.911)	59680	5.00000	5.1	
82 1,3,5-Trimethylbenzene	105	14.330	14.330 (0.924)	115871	5.00000	4.7	
83 2-Chlorotoluene	91	14.266	14.265 (0.919)	98404	5.00000	4.7	
84 1,2,3-Trichloropropane	75	14.330	14.330 (0.924)	48716	5.00000	5.1	
85 4-Chlorotoluene	91	14.509	14.508 (0.935)	107915	5.00000	4.9	
86 tert-Butylbenzene	119	14.809	14.809 (0.954)	96083	5.00000	2.5	
87 Pentachloroethane	117	14.831	14.830 (0.956)	28259	5.00000	4.8	
88 1,2,4-Trimethylbenzene	105	14.916	14.916 (0.961)	120982	5.00000	4.8	
89 P-Isopropyltoluene	119	15.310	15.309 (0.987)	93656	5.00000	4.7	
90 1,3-Dichlorobenzene	146	15.403	15.402 (0.993)	75163	5.00000	4.7	
* 91 1,4-Dichlorobenzene-D4	152	15.517	15.517 (1.000)	650153	50.0000		
92 1,4-Dichlorobenzene	146	15.546	15.545 (1.002)	91633	5.00000	4.9	
93 N-Butylbenzene	91	15.982	15.974 (1.030)	95351	5.00000	4.6	
94 sec-Butylbenzene	105	15.081	15.080 (0.972)	118718	5.00000	4.6	
95 1,2-Dichlorobenzene	146	16.218	16.210 (1.045)	73495	5.00000	4.6	
96 1,2-Dibromo-3-Chloropropane	75	17.548	17.547 (1.131)	8267	5.00000	3.7	
97 1,3,5-Trichlorobenzene	180	17.619	17.619 (1.135)	66141	5.00000	4.9	
98 Hexachlorobutadiene	225	18.727	18.727 (1.207)	27816	5.00000	4.9	
99 1,2,4-Trichlorobenzene	180	18.749	18.748 (1.208)	55303	5.00000	4.5	
100 1,2,3-Trimethylbenzene	105	15.589	15.588 (1.005)	156476	5.00000	5.0	
101 Naphthalene	128	19.335	19.328 (1.246)	127420	5.00000	4.9	
102 1,2,3-Trichlorobenzene	180	19.664	19.664 (1.267)	57775	5.00000	4.7	
103 Methyl Acetate	43	5.006	4.999 (0.622)	39742	5.00000	4.9	
104 Methylcyclohexane	83	8.667	8.660 (1.076)	42562	5.00000	3.5	



Data File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6755.D

Report Date: 19-Nov-2013 19:53

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6755.D

Lab Smp Id: WG134694-1 Client Smp ID: Initial Calibration

Inj Date : 19-NOV-2013 12:52

Operator : DJP Smp Info : WG134694-1 Inst ID: gcms-d.i

Misc Info :

Comment : SW846 5030
Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 7 Calibration Sample, Level: 1

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor 5.000 sample purged Vo

Cpnd Variable Local Compound Variable

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.074	2.073 (0.258)	7860	1.00000	0.82(a)	
2 Chloromethane	50	2.310	2.303 (0.287)	14882	1.00000	1.2	
3 Vinyl chloride	62	2.410	2.403 (0.299)	9105	1.00000	0.90(a)	
4 Bromomethane	94	2.803	2.804 (0.348)	5598	1.00000	1.2	
5 Chloroethane	64	2.968	2.961 (0.369)	5993	1.00000	1.1	ill
6 Trichlorofluoromethane	101	3.146	3.140 (0.391)	9707	1.00000	0.78(a)	W/N-
7 Diethyl Ether	59	3.554	3.547 (0.441)	6666	1.00000	1.1	12:31 pm, Dec 02, 2013
8 Tertiary-butyl alcohol	59	5.356	5.342 (0.665)	8485	5.00000	14.2	
9 1,1-Dichloroethene	96	3.819	3.819 (0.474)	4240	1.00000	0.77(a)	
10 Carbon Disulfide	76	3.861	3.862 (0.480)	17814	1.00000	2.7	
11 Freon-113	151	3.883	3.890 (0.482)	2372	1.00000	2.0(M)	M9
12 Iodomethane	142	4.026	4.019 (0.500)	3356	1.00000	0.71(a)	
13 Acrolein	56	4.312	4.304 (0.536)	6294	5.00000	4.9(a)	
14 Methylene Chloride	84	4.698	4.691 (0.584)	27481	1.00000	3.0(a)	
15 Acetone	43	4.777	4.770 (0.593)	14160	5.00000	5.3	
16 Isobutyl Alcohol	43	8.245	8.238 (1.024)	7188	20.0000	22.7	
17 trans-1,2-Dichloroethene	96	4.977	4.970 (0.618)	5935	1.00000	0.85(a)	
18 Allyl Chloride	41	4.526	4.527 (0.562)	7596	1.00000	0.78(a)	
19 Methyl tert-butyl ether	73	5.177	5.170 (0.643)	35164	2.00000	1.7	
20 Acetonitrile	39	5.542	5.535 (0.688)	2161	10.0000	10.7(a)	
21 Di-isopropyl ether	45	5.828	5.821 (0.724)	19045	1.00000	0.82(a)	
22 Chloroprene	53	5.949	5.942 (0.739)	6298	1.00000	0.67(a)	
23 Propionitrile	54	7.959	7.945 (0.988)	10625	10.0000	8.8(a)	
24 Methacrylonitrile	41	7.987	7.980 (0.992)	50066	10.0000	9.3(a)	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6755.D$  Report Date: 19-Nov-2013 19:53

								AMOUN	TS	
			QUANT SIG					CAL-AMT	ON-COL	
Co	mpo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
==	===		====	====	======	=======	=======	======	======	========
	25	1,1-Dichloroethane	63	5.978	5.971	(0.742)	11715	1.00000	0.87(a)	
	26	Acrylonitrile	52	6.049	6.035	(0.751)	12012	5.00000	4.5(a)	
	27	Ethyl tertiary-butyl ether	59	6.385	6.379	(0.793)	17497	1.00000	0.82(a)	
	28	Vinyl Acetate	43	6.393	6.386	(0.734)	9053	1.00000	0.88(a)	
	29	cis-1,2-Dichloroethene	96	6.772	6.772	(0.841)	6411	1.00000	0.83(a)	
	31	Methyl Methacrylate	41	9.574	9.575	(1.099)	3418	1.00000	0.51(a)	
	32	2,2-Dichloropropane	77	6.929	6.929	(0.861)	6598	1.00000	1.3	
	33	Bromochloromethane	128	7.050	7.051	(0.876)	3301	1.00000	0.95(a)	
	34	Chloroform	83	7.165	7.165	(0.890)	11740	1.00000	0.87(a)	
	35	Carbon Tetrachloride	117	7.344	7.351	(0.843)	4990	1.00000	1.4	
	36	Tetrahydrofuran	42	7.387	7.373	(0.917)	9227	5.00000	4.5(a)	
\$	37	Dibromofluoromethane	113	7.415	7.408	(0.921)	7855	1.00000	1.1	
	38	1,1,1-Trichloroethane	97	7.444	7.437	(0.925)	8451	1.00000	0.81(a)	
	40	2-Butanone	43	7.587	7.573	(0.942)	13552	5.00000	3.4(a)	
	41	Benzene	78	7.930	7.923	(0.911)	25547	1.00000	0.86(a)	
*	42	Pentafluorobenzene	168	8.051	8.052	(1.000)	715560	50.0000		
	43	Cyclohexane	56	7.065	7.065	(0.877)	5900	1.00000	0.40(a)	
	44	Ethyl Methacrylate	69	11.076	11.069	(1.272)	5053	1.00000	0.53(a)	
\$	45	1,2-Dichloroethane-D4	65	8.094	8.095	(1.005)	11278	1.00000	1.1	
		Tertiary-amyl methyl ether	73	8.102		(1.006)	15548	1.00000	0.80(a)	
		1,2-Dichloroethane	62	8.180		(0.939)	10482	1.00000	0.92(a)	
		Trichloroethene	95	8.666		(0.995)	5594	1.00000	0.78(a)	1 (
*		1,4-Difluorobenzene	114	8.709		(1.000)	1076574	50.0000	, , , , , , , , , , , , , , , , , , , ,	\\\\\\>
		Dibromomethane	93	9.167		(1.053)	4870	1.00000	0.96(a)	<b>V</b> V
		1,2-Dichloropropane	63	9.288		(1.066)	6697	1.00000	0.90(a)	12:31 pm, Dec 02, 2013
		Bromodichloromethane	83	9.374		(1.076)	7705	1.00000	1.5	
		cis-1,3-dichloropropene	75	10.118		(1.162)	9009	1.00000	1.1	
		1,4-Dioxane	88	9.625		(1.105)	12060	20.0000	17.7(aM)	м9
\$		Toluene-D8	98		10.333		22049	1.00000	0.89(a)	117
~		2-Chloroethylvinylether	63	10.397		(1.194)	1558	1.00000	1.7	
		4-methyl-2-pentanone	43		10.826		25014	5.00000	10.6	
		Tetrachloroethene	164		10.840		4970	1.00000	0.87(a)	
		trans-1,3-Dichloropropene	75		10.846		7389	1.00000	1.6	
		1,1,2-Trichloroethane	83		11.062		6027	1.00000	0.97(a)	
		Dibromochloromethane	129		11.277		5753		0.37(a) 0.79(a)	
			76					1.00000		
		1,3-Dichloropropane			11.384 11.555		11645	1.00000	0.92(a)	MC
		1,2-Dibromoethane	107				6191	1.00000	0.84(aM)	М6
*		2-Hexanone	43		11.841		15216	5.00000	12.9	
		Chlorobenzene-D5	117		12.199		946966	50.0000	1 0	
		Chlorobenzene	112		12.220		18429	1.00000	1.0	
		1-Chlorohexane	91		12.199		8379	1.00000	0.88(a)	
		Ethylbenzene	106		12.263		7924	1.00000	0.78(a)	
		1,1,1,2-Tetrachloroethane	131		12.306		5796	1.00000	0.86(a)	
		o-Xylene	106		13.021		6573	1.00000	1.3	
		Styrene	104		13.093		9461	1.00000	0.72(a)	
		Bromoform	173		13.121		3643	1.00000	2.9(M)	М6
		Isopropylbenzene	105		13.450		14886	1.00000	2.2	
\$		P-Bromofluorobenzene	95		13.843		9466	1.00000	0.94(a)	
		cis-1,4-Dichloro-2-Butene	53		13.936		1817	1.00000	0.70(a)	
		trans-1,4-Dichloro-2-Butene	53		14.394		1909	1.00000	0.74(a)	
	79	Bromobenzene	156	14.000	13.994	(0.902)	6004	1.00000	0.77(a)	
		N-Propylbenzene	91	14.043	14.044	(0.905)	17691	1.00000	2.2	
	81	1,1,2,2-Tetrachloroethane	83	14.129	14.129	(0.911)	10212	1.00000	1.00	
	82	1,3,5-Trimethylbenzene	105	14.329	14.330	(0.924)	13242	1.00000	2.1	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6755.D$  Report Date: 19-Nov-2013 19:53

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====	=======================================	======	======	======	========
83 2-Chlorotoluene	91	14.265	14.265 (0.919)	12784	1.00000	1.9	
84 1,2,3-Trichloropropane	75	14.329	14.330 (0.924)	8187	1.00000	0.98(a)	
85 4-Chlorotoluene	91	14.508	14.508 (0.935)	13440	1.00000	1.9	
88 1,2,4-Trimethylbenzene	105	14.916	14.916 (0.961)	13503	1.00000	2.3	
89 P-Isopropyltoluene	119	15.309	15.309 (0.987)	11087	1.00000	2.5	
90 1,3-Dichlorobenzene	146	15.409	15.402 (0.993)	11268	1.00000	0.81(a)	
* 91 1,4-Dichlorobenzene-D4	152	15.516	15.517 (1.000)	568294	50.0000		
92 1,4-Dichlorobenzene	146	15.545	15.545 (1.002)	17391	1.00000	1.1	
93 N-Butylbenzene	91	15.981	15.974 (1.030)	13260	1.00000	2.5	
94 sec-Butylbenzene	105	15.080	15.080 (0.972)	14513	1.00000	2.3	
95 1,2-Dichlorobenzene	146	16.217	16.210 (1.045)	11876	1.00000	0.85(a)	
96 1,2-Dibromo-3-Chloropropane	75	17.547	17.547 (1.131)	1292	1.00000	1.0	
97 1,3,5-Trichlorobenzene	180	17.626	17.619 (1.136)	11483	1.00000	0.97(a)	
98 Hexachlorobutadiene	225	18.727	18.727 (1.207)	6101	1.00000	1.2	
99 1,2,4-Trichlorobenzene	180	18.755	18.748 (1.209)	8637	1.00000	0.80(a)	
100 1,2,3-Trimethylbenzene	105	15.588	15.588 (1.005)	24737	1.00000	0.91(a)	
101 Naphthalene	128	19.334	19.328 (1.246)	13743	1.00000	3.1	
102 1,2,3-Trichlorobenzene	180	19.663	19.664 (1.267)	9553	1.00000	0.89(a)	
103 Methyl Acetate	43	5.020	4.999 (0.623)	6657	1.00000	0.90(a)	

#### QC Flag Legend

- a Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
   M Compound response manually integrated.

Data File: \target\_server\gg\chem\gcms-d.i\D111913.b\D6756A.D

Report Date: 02-Dec-2013 12:32

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6756A.D

Lab Smp Id: WG134694-12 Client Smp ID: Independent Source

Inj Date : 19-NOV-2013 13:42

Operator : DJP Inst ID: gcms-d.i

Smp Info : WG134694-12, WE40-1

Misc Info: WG134694, WG134694-4, SG9180-1

Comment : SW846 5030
Method : \\target\_server\gg\chem\gcms-d.i\D111913.b\D826A38.m

Meth Date: 19-Nov-2013 19:48 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D QC Sample: LCS Als bottle: 8

Dil Factor: 1.00000

24 Methacrylonitrile

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged DF

Vo Local Compound Variable Cpnd Variable

CONCENTRATIONS OUANT SIG ON-COLUMN FINAL MASS RT EXP RT REL RT RESPONSE ( ug/l) ( ug/l) REVIEW CODE Compounds ---- ------ ------ ------======== 2.071 2.073 (0.257) 1 Dichlorodifluoromethane 85 364039 35.3447 35.3(R) 50 520822 38.2897 2.307 2.303 (0.287) 2 Chloromethane 38.3(R) 3 Vinyl chloride 62 2.407 2.403 (0.299) 476978 43.4737 43.5 2.801 2.804 (0.348) 227162 44.5698 4 Bromomethane 94 44.6 64 50.0 5 Chloroethane

 
 2.965
 2.961 (0.368)
 301858
 49.9639

 3.144
 3.140 (0.391)
 640156
 47.7158

 3.552
 3.547 (0.441)
 323405
 48.9346
 6 Trichlorofluoromethane 101 47.7 7 Diethyl Ether 59 48.9 

 5.346
 5.342 (0.664)
 44269
 57.7607

 3.823
 3.819 (0.475)
 335809
 56.5679

 8 Tertiary-butyl alcohol 59 57.8(R) 9 1,1-Dichloroethene 96 56.6 3.859 3.862 (0.479) 1308462 43.1576 76 43.2 10 Carbon Disulfide 3.888 3.890 (0.483) 203355 44.5231 4.016 4.019 (0.499) 290640 46.3307 44.5 11 Freon-113 151 142 46.3 12 Iodomethane 4.304 (0.535) 318513 231.312 231 13 Acrolein 56 4.302 14 Methylene Chloride 84 4.696 4.691 (0.583) 468575 46.1322 46.1 67.9(R) 4.774 4.770 (0.593) 197435 67.9389 15 Acetone 43 16 Isobutyl Alcohol 8.242 8.238 (1.024) 82869 242.226 4.974 4.970 (0.618) 396139 52.3187 43 242(R) 96 17 trans-1,2-Dichloroethene 52.3 18 Allyl Chloride 4.531 4.527 (0.563) 580604 55.4381 41 73 39 5.175 5.170 (0.643) 2321643 101.787 102 19 Methyl tert-butyl ether 320(R) 5.532 5.535 (0.687) 69532 319.819 20 Acetonitrile 5.818 5.821 (0.723) 1310993 52.3994 45 52.4 21 Di-isopropyl ether 53 5.947 5.942 (0.739) 543577 53.6002 54 7.949 7.945 (0.988) 508106 391.979 41 7.977 7.980 (0.991) 2898813 499.014 22 Chloroprene 392(R) 23 Propionitrile

499

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6756A.D$  Report Date: 02-Dec-2013 12:32

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====	=======================================		======	======	========
25 1,1-Dichloroethane	63	5.975	5.971 (0.742)	793840	54.4049	54.4	
26 Acrylonitrile	52	6.040	6.035 (0.750)	676822	233.068	233	
27 Ethyl tertiary-butyl ether	59	6.383	6.379 (0.793)	1190985	51.9611	52.0	
28 Vinyl Acetate	43	6.383	6.386 (0.733)	1146420	59.7775	59.8	
29 cis-1,2-Dichloroethene	96	6.776	6.772 (0.842)	441121	52.9251	52.9	
M 30 1,2-Dichloroethylene (total)	96			837260	105.244	105	
31 Methyl Methacrylate	41	9.572	9.575 (1.098)	391226	54.0420	54.0	
32 2,2-Dichloropropane	77	6.926	6.929 (0.861)	617395	49.8138	49.8	
33 Bromochloromethane	128	7.048	7.051 (0.876)	201958	54.0423	54.0	
34 Chloroform	83	7.169	7.165 (0.891)	786070	53.7133	53.7	
35 Carbon Tetrachloride	117	7.348	7.351 (0.843)	526814	48.6265	48.6	
36 Tetrahydrofuran	42	7.384	7.373 (0.917)	122111	40.9972	41.0	
\$ 37 Dibromofluoromethane	113	7.413	7.408 (0.921)	379494	48.3576	48.4	
38 1,1,1-Trichloroethane	97	7.441	7.437 (0.924)	664145	49.1257	49.1	
39 1,1-Dichloropropene	75	7.606	7.608 (0.873)	557246	48.0113	48.0	
40 2-Butanone	43	7.584	7.573 (0.942)	238148	48.3892	48.4	
41 Benzene	78	7.927	7.923 (0.910)	1719316	52.9681	53.0	
* 42 Pentafluorobenzene	168	8.049	8.052 (1.000)	772880	50.0000	33.0	
12 Telleatiuotopelizelle	56	7.062		705387	54.1510	54.2	
43 Cyclohexane	69	11.073	7.065 (0.877)				
44 Ethyl Methacrylate			11.069 (1.271)	562571	53.9712	54.0	
\$ 45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.005)	514529	47.0923	47.1	
46 Tertiary-amyl methyl ether	73	8.099	8.102 (1.006)	1049017	50.1586	50.2	
47 1,2-Dichloroethane	62	8.178	8.180 (0.938)	639335	51.6603	51.7	
48 Trichloroethene	95	8.671	8.667 (0.995)	415530	53.4148	53.4	
* 49 1,4-Difluorobenzene	114	8.714	8.710 (1.000)	1172406	50.0000		
50 Dibromomethane	93	9.164	9.167 (1.052)	285255	51.4395	51.4	
51 1,2-Dichloropropane	63	9.293	9.289 (1.066)	436515	53.7686	53.8	
52 Bromodichloromethane	83	9.372	9.375 (1.075)	633655	50.9896	51.0	
53 cis-1,3-dichloropropene	75	10.115	10.118 (1.161)	736968	47.5320	47.5	
54 1,4-Dioxane	88	9.615	9.618 (1.103)	13825	20.7126	20.7(RM)	М6
\$ 55 Toluene-D8	98	10.337	10.333 (1.186)	1365675	50.6809	50.7	
56 2-Chloroethylvinylether	63	10.394	10.390 (1.193)	148494	48.0004	48.0	
57 Toluene	92	10.394	10.390 (1.193)	1066008	49.6380	49.6	
58 4-methyl-2-pentanone	43	10.830	10.826 (1.243)	427981	42.8931	42.9	
59 Tetrachloroethene	164	10.845	10.840 (0.889)	344657	53.7444	53.7	
60 trans-1,3-Dichloropropene	75	10.873	10.876 (1.248)	680594	49.0128	49.0	
61 1,1,2-Trichloroethane	83	11.059	11.062 (1.269)	348148	51.7071	51.7	
62 Dibromochloromethane	129	11.274	11.277 (0.924)	440134	54.0052	54.0	
63 1,3-Dichloropropane	76	11.388	11.384 (0.933)	741147	51.9535	52.0	
64 1,2-Dibromoethane	107	11.560	11.555 (1.327)	418593	52.0420	52.0	
65 2-Hexanone	43	11.839	11.841 (0.970)	318447	45.6173	45.6	
* 66 Chlorobenzene-D5	117	12.203	12.199 (1.000)	1065043	50.0000		
67 Chlorobenzene	112	12.225	12.220 (1.002)	1152659	56.0956	56.1	
152 1-Chlorohexane	91	12.203	12.199 (1.000)	578751	54.0922	54.1	
68 Ethylbenzene	106	12.260	12.263 (1.005)	613737	53.7766	53.8	
69 1,1,1,2-Tetrachloroethane	131	12.303	12.306 (1.008)	409266	54.1134	54.1	
M 70 Xylenes (total)	106			2266171	159.156	159	
71 m+p-Xylenes	106	12.453	12.449 (1.021)	1530320	107.678	108	
72 o-Xylene	106	13.018	13.021 (1.067)	735851	51.4781	51.5	
73 Styrene	104	13.090	13.093 (1.073)	1257601	49.4027	49.4	
74 Bromoform	173	13.118	13.121 (1.075)	322869	45.6423	45.6	
75 Isopropylbenzene	105		13.450 (0.867)	1826897	49.3792	49.4	
\$ 76 P-Bromofluorobenzene	95		13.843 (1.588)	556920	50.8617	50.9	
77 cis-1,4-Dichloro-2-Butene	53		13.936 (0.898)	164319	51.9680	52.0	
		· · · · <del>-</del>	, /			-	

Data File:  $\t server \g \chem \gcms-d.i\D111913.b\D6756A.D$  Report Date: 02-Dec-2013 12:32

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		=======	======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.391	14.394 (0.927)	155795	49.7518	49.8	
79 Bromobenzene	156	13.991	13.994 (0.901)	509635	53.9518	54.0	
80 N-Propylbenzene	91	14.041	14.044 (0.905)	2290947	51.4478	51.4	
81 1,1,2,2-Tetrachloroethane	83	14.134	14.129 (0.911)	608450	49.1892	49.2	
82 1,3,5-Trimethylbenzene	105	14.334	14.330 (0.924)	1590259	44.9569	45.0	
83 2-Chlorotoluene	91	14.262	14.265 (0.919)	1393135	49.8802	49.9	
84 1,2,3-Trichloropropane	75	14.327	14.330 (0.923)	491629	48.6166	48.6	
85 4-Chlorotoluene	91	14.506	14.508 (0.935)	1515092	51.7276	51.7	
86 tert-Butylbenzene	119	14.806	14.809 (0.954)	1513871	55.3856	55.4	
87 Pentachloroethane	117	14.827	14.830 (0.955)	332741	53.1105	53.1	
88 1,2,4-Trimethylbenzene	105	14.913	14.916 (0.961)	1710612	45.6841	45.7	
89 P-Isopropyltoluene	119	15.306	15.309 (0.986)	1649817	49.5908	49.6	
90 1,3-Dichlorobenzene	146	15.406	15.402 (0.993)	980095	58.2389	58.2	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	688321	50.0000		
92 1,4-Dichlorobenzene	146	15.542	15.545 (1.001)	1011459	51.2158	51.2	
93 N-Butylbenzene	91	15.978	15.974 (1.029)	1564105	46.9901	47.0	
94 sec-Butylbenzene	105	15.078	15.080 (0.971)	1943861	50.3233	50.3	
95 1,2-Dichlorobenzene	146	16.214	16.210 (1.045)	994287	58.5462	58.5	
96 1,2-Dibromo-3-Chloropropane	75	17.544	17.547 (1.130)	120115	45.5901	45.6	
97 1,3,5-Trichlorobenzene	180	17.623	17.619 (1.135)	721758	50.5630	50.6	
98 Hexachlorobutadiene	225	18.731	18.727 (1.207)	300077	49.7240	49.7	
99 1,2,4-Trichlorobenzene	180	18.753	18.748 (1.208)	719665	55.3029	55.3	
100 1,2,3-Trimethylbenzene	105	15.592	15.588 (1.005)	1710148	51.7333	51.7	
101 Naphthalene	128	19.332	19.328 (1.246)	1929866	40.2692	40.3	
102 1,2,3-Trichlorobenzene	180	19.668	19.664 (1.267)	688662	53.0528	53.0	
103 Methyl Acetate	43	5.003	4.999 (0.622)	326012	41.0141	41.0	
104 Methylcyclohexane	83	8.664	8.660 (1.076)	545711	49.7585	49.8	
M 153 Total Alkylbenzenes	100			12263472	344.379	344	

### QC Flag Legend

- R Spike/Surrogate failed recovery limits.
  M Compound response manually integrated.

File: \\target\_server\gg\chem\gcms-d.i\D111913.b\D6756A.D





# Form 7 Calibration Verification Summary

**SDG:** WE40-1

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-04

Lab ID :WG134916-4 Analytical Date: 11/22/13 08:17
Lab File ID :C4417.D Instrument ID: GCMS-C

**Initial Calibration Date(s):** 11/13/13 10:01 11/13/13 12:38 **Column ID:** 

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
19 Methyl tert-butyl ether	1.03548	1.05058	1.05058	0.010	1.45810	20.00000	Averaged	
41 Benzene	0.92118	0.98103	0.98103	0.010	6.49744	20.00000	Averaged	
57 Toluene	0.57301	0.60140	0.60140	0.010	4.95495	20.00000	Averaged	
68 Ethylbenzene	0.34948	0.35017	0.35017	0.010	0.19802	20.00000	Averaged	
70 Xylenes (total)	++++	0.41151	0.41151	0.010	++++	20.00000	Averaged	;
71 m+p-Xylenes	0.40593	0.41987	0.41987	0.010	3.43252	20.00000	Averaged	
72 o-Xylene	0.38136	0.39481	0.39481	0.010	3.52605	20.00000	Averaged	
37 Dibromofluoromethane	0.38135	0.33762	0.33762	0.010	-11.46861	20.00000	Averaged	
45 1,2-Dichloroethane-D4	0.41325	0.38666	0.38666	0.010	-6.43609	20.00000	Averaged	
55 Toluene-D8	0.73051	0.67647	0.67647	0.010	-7.39771	20.00000	Averaged	
76 P-Bromofluorobenzene	0.34118	0.31030	0.31030	0.010	-9.05050	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4417.D

Report Date: 02-Dec-2013 12:01

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4417.D

Lab Smp Id: WG134916-4 Client Smp ID: ontinuing Calibrati

Inj Date : 22-NOV-2013 08:17

Operator : REC Smp Info : WG134916-4,WE40-1 Misc Info : WG134916,WG134365-4,SG9044-10 Inst ID: gcms-c.i

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112213.b\C826A90.m

Meth Date: 02-Dec-2013 12:00 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged Local Compound V DF Vo

Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.053	2.051 (0.251)	423642	50.0000	50.7	
2 Chloromethane	50	2.303	2.301 (0.282)	481040	50.0000	42.6	
3 Vinyl chloride	62	2.403	2.401 (0.294)	400355	50.0000	47.8	
4 Bromomethane	94	2.818	2.816 (0.344)	192836	50.0000	44.0	
5 Chloroethane	64	2.975	2.980 (0.364)	116669	50.0000	29.6	
6 Trichlorofluoromethane	101	3.161	3.166 (0.386)	500850	50.0000	57.4	
7 Diethyl Ether	59	3.604	3.602 (0.441)	216272	50.0000	42.3	
8 Tertiary-butyl alcohol	59	5.499	5.490 (0.672)	114999	250.000	202	
9 1,1-Dichloroethene	96	3.876	3.881 (0.474)	239443	50.0000	54.6	
10 Carbon Disulfide	76	3.912	3.917 (0.478)	997284	50.0000	58.8	
11 Freon-113	151	3.947	3.946 (0.483)	125731	50.0000	45.3	
12 Iodomethane	142	4.090	4.089 (0.500)	281310	50.0000	66.4	
13 Acrolein	56	4.412	4.410 (0.539)	193515	250.000	185	
14 Methylene Chloride	84	4.805	4.811 (0.587)	364991	50.0000	52.9	
15 Acetone	43	4.906	4.904 (0.600)	552486	250.000	259	
16 Isobutyl Alcohol	43	8.380	8.379 (1.024)	225960	1000.00	946	
17 trans-1,2-Dichloroethene	96	5.084	5.090 (0.622)	287996	50.0000	49.9	
18 Allyl Chloride	41	4.627	4.632 (0.566)	432469	50.0000	39.6	
19 Methyl tert-butyl ether	73	5.292	5.290 (0.647)	1534929	100.000	101	
20 Acetonitrile	39	5.699	5.697 (0.697)	91712	500.000	438	
21 Di-isopropyl ether	45	5.935	5.940 (0.726)	925897	50.0000	42.6	
22 Chloroprene	53	6.071	6.069 (0.742)	410041	50.0000	45.6	
23 Propionitrile	54	8.102	8.106 (0.990)	432428	500.000	434	
24 Methacrylonitrile	41	8.130	8.128 (0.994)	1855319	500.000	424	

Data File:  $\t server \g \ens{c} c.i\C112213.b\C4417.D$  Report Date: 02-Dec-2013 12:01

								AMOUN	ITS	
			QUANT SIG					CAL-AMT	ON-COL	
Co	mpounds		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
==	========		====					======	======	========
	25 1,1-Dich		63	6.107		(0.747)	592619	50.0000	52.1	
	26 Acryloni		52	6.200		(0.758)	453203	250.000	209	
		rtiary-butyl ether	59	6.500		(0.795)	783605	50.0000	45.4	
	28 Vinyl Ac		43	6.521		(0.738)	619847	50.0000	51.0	
		Dichloroethene	96	6.908		(0.844)	310103	50.0000	47.8	
	31 Methyl M		41	9.696		(1.097)	257755	50.0000	47.2	
	32 2,2-Dich		77	7.058		(0.863)	484244	50.0000	56.9	
	33 Bromochl		128	7.186		(0.879)	127416	50.0000	49.3	
	34 Chlorofo		83	7.301		(0.892)	604316	50.0000	53.2	
		etrachloride	117	7.465		(0.845)	432985	50.0000	60.6	
	36 Tetrahyd:		42	7.501		(0.917)	500961	250.000	250	
\$		luoromethane	113	7.544		(0.922)	246634	50.0000	44.3	
		ichloroethane	97	7.558		(0.924)	548007	50.0000	57.1	
	39 1,1-Dich	loropropene	75	11.005		(1.245)	486687	50.0000	56.5	
	40 2-Butano	ne	43	7.723	7.721	(0.944)	804934	250.000	260	
	41 Benzene		78	8.052	8.057	(0.911)	1237973	50.0000	53.2	
*	42 Pentaflu	orobenzene	168	8.180	8.178	(1.000)	730513	50.0000		
	43 Cyclohexa	ane	56	7.172	7.170	(0.877)	560166	50.0000	55.7	
	44 Ethyl Me	<del>-</del>	69	11.190	11.189	(1.266)	368156	50.0000	49.0	
\$	45 1,2-Dich	loroethane-D4	65	8.230	8.228	(1.006)	282457	50.0000	46.8	
	46 Tertiary	-amyl methyl ether	73	8.216	8.214	(1.004)	663332	50.0000	44.5	
	47 1,2-Dich	loroethane	62	8.316	8.314	(0.941)	427254	50.0000	60.2	
	48 Trichlor	oethene	95	8.788	8.786	(0.994)	300851	50.0000	54.1	
*	49 1,4-Difl	uorobenzene	114	8.838	8.836	(1.000)	1261910	50.0000		
	50 Dibromom	ethane	93	9.303	9.301	(1.053)	201232	50.0000	52.2	
	51 1,2-Dich	loropropane	63	9.417	9.423	(1.066)	316790	50.0000	52.9	
	52 Bromodic	hloromethane	83	9.503	9.501	(1.075)	471403	50.0000	56.5	
	53 cis-1,3-	dichloropropene	75	10.240	10.245	(1.159)	561058	50.0000	54.6	
	54 1,4-Diox	ane	88	9.746	9.737	(1.103)	67306	1000.00	761	
\$	55 Toluene-	D8	98	10.454	10.452	(1.183)	853641	50.0000	46.3	
	56 2-Chloro	ethylvinylether	63	10.175	10.181	(1.151)	120150	50.0000	49.2	
	57 Toluene		92	10.511	10.509	(1.189)	758913	50.0000	52.5	
	58 4-methyl	-2-pentanone	43	10.962	10.960	(1.240)	1516019	250.000	270	
	59 Tetrachle	oroethene	164	10.955	10.960	(0.888)	224474	50.0000	53.8	
	60 trans-1,	3-Dichloropropene	75	11.005	11.003	(1.245)	486687	50.0000	56.5	
	61 1,1,2-Tr	ichloroethane	83	11.190	11.196	(1.266)	245817	50.0000	52.2	
	62 Dibromoc	hloromethane	129	11.405	11.410	(0.925)	318017	50.0000	54.6	
	63 1,3-Dich	loropropane	76	11.519	11.525	(0.934)	545210	50.0000	53.0	
	64 1,2-Dibre	omoethane	107	11.698	11.696	(1.324)	287523	50.0000	51.1	
	65 2-Hexano	ne	43	11.977	11.975	(0.971)	1117919	250.000	264	
*	66 Chlorobe	nzene-D5	117	12.335	12.340	(1.000)	1230733	50.0000		
	67 Chlorobe	nzene	112	12.356	12.361	(1.002)	722528	50.0000	50.1	
	152 1-Chlorol	hexane	91	12.327	12.326	(0.999)	492145	50.0000	48.6	
	68 Ethylben	zene	106	12.392	12.390	(1.005)	430967	50.0000	50.1	
	69 1,1,1,2-	Tetrachloroethane	131	12.442	12.440	(1.009)	285937	50.0000	51.7	
	71 m+p-Xyle	nes	106	12.578	12.583	(1.020)	1033491	100.000	103	
	72 o-Xylene		106	13.157	13.155	(1.067)	485900	50.0000	51.8	
	73 Styrene		104	13.228	13.226	(1.072)	905735	50.0000	53.1	
	74 Bromoform		173	13.271	13.269	(1.076)	200743	50.0000	52.6	
	75 Isopropy	lbenzene	105	13.586	13.591	(0.866)	1330145	50.0000	48.2	
\$	76 P-Bromof	luorobenzene	95	13.993	13.992	(1.583)	391568	50.0000	45.5	
	77 cis-1,4-	Dichloro-2-Butene	53	14.093	14.092	(0.898)	120095	50.0000	44.7	
	78 trans-1,	4-Dichloro-2-Butene	53	14.558	14.556	(0.928)	110627	50.0000	45.8	

156 14.144 14.149 (0.902) 321547 50.0000 48.2

79 Bromobenzene

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Report Date:	02-Dec-2013	12:01
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					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
unds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
N-Propylbenzene	91	14.186	14.185 (0.904)	1755107	50.0000	49.0	
1,1,2,2-Tetrachloroethane	83	14.294	14.292 (0.911)	423599	50.0000	46.2	
1,3,5-Trimethylbenzene	105	14.472	14.478 (0.923)	1295472	50.0000	50.0	
2-Chlorotoluene	91	14.415	14.413 (0.919)	1097016	50.0000	50.0	
1,2,3-Trichloropropane	75	14.494	14.492 (0.924)	343231	50.0000	47.0	
4-Chlorotoluene	91	14.665	14.664 (0.935)	1117173	50.0000	48.8	
tert-Butylbenzene	119	14.951	14.957 (0.953)	1149071	50.0000	48.0	
Pentachloroethane	117	14.987	14.985 (0.955)	249421	50.0000	44.0	
1,2,4-Trimethylbenzene	105	15.066	15.064 (0.960)	1288842	50.0000	50.3	
P-Isopropyltoluene	119	15.459	15.457 (0.985)	1260013	50.0000	49.9	
1,3-Dichlorobenzene	146	15.566	15.572 (0.992)	571718	50.0000	47.1	
1,4-Dichlorobenzene-D4	152	15.688	15.686 (1.000)	719153	50.0000		
1,4-Dichlorobenzene	146	15.709	15.708 (1.001)	631372	50.0000	47.0	
N-Butylbenzene	91	16.138	16.137 (1.029)	1500856	50.0000	50.9	
sec-Butylbenzene	105	15.230	15.229 (0.971)	1556814	50.0000	49.3	
1,2-Dichlorobenzene	146	16.389	16.387 (1.045)	537202	50.0000	48.1	
1,2-Dibromo-3-Chloropropane	75	17.747	17.745 (1.131)	63024	50.0000	43.6	
1,3,5-Trichlorobenzene	180	17.797	17.803 (1.134)	382562	50.0000	43.2	
Hexachlorobutadiene	225	18.905	18.904 (1.205)	184450	50.0000	46.4	
1,2,4-Trichlorobenzene	180	18.941	18.947 (1.207)	307176	50.0000	43.1	
1,2,3-Trimethylbenzene	105	15.752	15.750 (1.004)	1160046	50.0000	44.8	
Naphthalene	128	19.535	19.533 (1.245)	569194	50.0000	35.4	
1,2,3-Trichlorobenzene	180	19.871	19.869 (1.267)	183995	50.0000	32.2	
Methyl Acetate	43	5.134	5.133 (0.628)	248796	50.0000	42.0	
Methylcyclohexane	83	8.767	8.772 (1.072)	455994	50.0000	44.4	
	N-Propylbenzene  1,1,2,2-Tetrachloroethane  1,3,5-Trimethylbenzene  2-Chlorotoluene  1,2,3-Trichloropropane  4-Chlorotoluene tert-Butylbenzene Pentachloroethane  1,2,4-Trimethylbenzene P-Isopropyltoluene  1,3-Dichlorobenzene  1,4-Dichlorobenzene  N-Butylbenzene sec-Butylbenzene  1,2-Dichlorobenzene  1,2-Dichlorobenzene  1,2-Dichlorobenzene  1,2-Trichlorobenzene  1,3,5-Trichlorobenzene  Hexachlorobutadiene  1,2,4-Trichlorobenzene  1,2,3-Trimethylbenzene  Naphthalene  1,2,3-Trichlorobenzene  Methyl Acetate	NASS   NASS	unds       MASS       RT         ====================================	N-Propylbenzene 91 14.186 14.185 (0.904) 1,1,2,2-Tetrachloroethane 83 14.294 14.292 (0.911) 1,3,5-Trimethylbenzene 105 14.472 14.478 (0.923) 2-Chlorotoluene 91 14.415 14.413 (0.919) 1,2,3-Trichloropropane 75 14.494 14.492 (0.924) 4-Chlorotoluene 91 14.665 14.664 (0.935) tert-Butylbenzene 119 14.951 14.957 (0.953) Pentachloroethane 117 14.987 14.985 (0.955) 1,2,4-Trimethylbenzene 105 15.066 15.064 (0.960) P-Isopropyltoluene 119 15.459 15.457 (0.985) 1,3-Dichlorobenzene 146 15.566 15.572 (0.992) 1,4-Dichlorobenzene 146 15.566 15.572 (0.992) 1,4-Dichlorobenzene 146 15.709 15.708 (1.001) N-Butylbenzene 91 16.138 16.137 (1.029) sec-Butylbenzene 105 15.230 15.229 (0.971) 1,2-Dichlorobenzene 146 16.389 16.387 (1.045) 1,2-Dibromo-3-Chloropropane 75 17.747 17.745 (1.131) 1,3,5-Trichlorobenzene 180 17.797 17.803 (1.134) Hexachlorobtadiene 225 18.905 18.904 (1.205) 1,2,4-Trimethylbenzene 105 15.752 15.750 (1.004) Naphthalene 128 19.535 19.533 (1.245) 1,2,3-Trichlorobenzene 180 19.871 19.869 (1.267) Methyl Acetate 43 5.134 5.133 (0.628)	MASS   RT   EXP RT   REL RT   RESPONSE	CAL-ANT   CAL-	NASS   RT   EXP RT   REL RT   RESPONSE   ( ug/1)   ( ug/1)





## Form 7 **Calibration Verification Summary**

Lab Name: Katahdin Analytical Services

**Project**: NAVSTA Newport CTO WE40-04

**SDG:** WE40-1 **Lab ID**: WG134993-4 **Analytical Date:** 11/23/13 08:15 Lab File ID: C4444.D **Instrument ID:** GCMS-C **Column ID:** 

**Initial Calibration Date(s):** 11/13/13 10:01 11/13/13 12:38

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
19 Methyl tert-butyl ether	1.03548	0.92741	0.92741	0.010	-10.43663	20.00000	Averaged	
41 Benzene	0.92118	0.91974	0.91974	0.010	-0.15602	20.00000	Averaged	
57 Toluene	0.57301	0.55342	0.55342	0.010	-3.41838	20.00000	Averaged	
68 Ethylbenzene	0.34948	0.33171	0.33171	0.010	-5.08562	20.00000	Averaged	
70 Xylenes (total)	++++	0.38782	0.38782	0.010	++++	20.00000	Averaged	;
71 m+p-Xylenes	0.40593	0.39181	0.39181	0.010	-3.47880	20.00000	Averaged	
72 o-Xylene	0.38136	0.37982	0.37982	0.010	-0.40214	20.00000	Averaged	
37 Dibromofluoromethane	0.38135	0.31332	0.31332	0.010	-17.83910	20.00000	Averaged	
45 1,2-Dichloroethane-D4	0.41325	0.33716	0.33716	0.010	-18.41325	20.00000	Averaged	
55 Toluene-D8	0.73051	0.64263	0.64263	0.010	-12.02973	20.00000	Averaged	
76 P-Bromofluorobenzene	0.34118	0.29760	0.29760	0.010	-12.77191	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

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Report Date: 02-Dec-2013 12:10

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4444.D

Lab Smp Id: WG134993-4 Client Smp ID: ontinuing Calibrati

Inj Date : 23-NOV-2013 08:15

Operator : REC Smp Info : WG134993-4,WE40-1 Misc Info : WG134993,WG134365-4,SG9044-1 Inst ID: gcms-c.i

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor 5.000 sample purged Local Compound V Vo

Cpnd Variable Local Compound Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.050	2.051 (0.251)	428897	50.0000	42.3	
2 Chloromethane	50	2.301	2.301 (0.281)	535280	50.0000	39.2	
3 Vinyl chloride	62	2.401	2.401 (0.294)	428406	50.0000	42.2	
4 Bromomethane	94	2.816	2.816 (0.344)	214842	50.0000	40.4	
5 Chloroethane	64	2.973	2.980 (0.364)	113669	50.0000	22.1	
6 Trichlorofluoromethane	101	3.159	3.166 (0.386)	477868	50.0000	45.2	
7 Diethyl Ether	59	3.602	3.602 (0.440)	221116	50.0000	35.7	
8 Tertiary-butyl alcohol	59	5.504	5.490 (0.673)	124631	250.000	182	
9 1,1-Dichloroethene	96	3.881	3.881 (0.475)	266863	50.0000	50.2	
10 Carbon Disulfide	76	3.909	3.917 (0.478)	1034597	50.0000	50.4	
11 Freon-113	151	3.945	3.946 (0.482)	123627	50.0000	36.8	
12 Iodomethane	142	4.088	4.089 (0.500)	348824	50.0000	68.0	
13 Acrolein	56	4.410	4.410 (0.539)	211225	250.000	166	
14 Methylene Chloride	84	4.810	4.811 (0.588)	386501	50.0000	45.7	
15 Acetone	43	4.903	4.904 (0.600)	608683	250.000	235	
16 Isobutyl Alcohol	43	8.378	8.379 (1.024)	232928	1000.00	805	
17 trans-1,2-Dichloroethene	96	5.089	5.090 (0.622)	344641	50.0000	49.3	
18 Allyl Chloride	41	4.624	4.632 (0.565)	467476	50.0000	35.4	
19 Methyl tert-butyl ether	73	5.289	5.290 (0.647)	1641363	100.000	89.6	
20 Acetonitrile	39	5.704	5.697 (0.698)	93812	500.000	370	
21 Di-isopropyl ether	45	5.933	5.940 (0.725)	1004379	50.0000	38.2	
22 Chloroprene	53	6.069	6.069 (0.742)	393689	50.0000	36.1	
23 Propionitrile	54	8.099	8.106 (0.990)	452130	500.000	374	
24 Methacrylonitrile	41	8.128	8.128 (0.994)	1868114	500.000	341	

Data File:  $\t server \g \em \gcms-c.i\C112313.b\C4444.D$  Report Date: 02-Dec-2013 12:10

							AMOUN	ITS	
		QUANT SIG					CAL-AMT	ON-COL	
Compo	ounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
====	=======================================	====	====	======	=======	======	======	======	========
25	5 1,1-Dichloroethane	63	6.105	6.105	(0.746)	632445	50.0000	45.9	
26	6 Acrylonitrile	52	6.198	6.198	(0.758)	486357	250.000	185	
2	7 Ethyl tertiary-butyl ether	59	6.498	6.498	(0.795)	821030	50.0000	39.3	
28	8 Vinyl Acetate	43	6.519	6.520	(0.738)	691933	50.0000	47.4	
29	9 cis-1,2-Dichloroethene	96	6.905	6.913	(0.844)	367465	50.0000	46.8	
31	1 Methyl Methacrylate	41	9.694	9.694	(1.097)	263872	50.0000	40.3	
32	2 2,2-Dichloropropane	77	7.056	7.056	(0.863)	503043	50.0000	48.8	
33	3 Bromochloromethane	128	7.184	7.185	(0.878)	145243	50.0000	46.4	
34	4 Chloroform	83	7.299	7.299	(0.892)	652716	50.0000	47.4	
35	5 Carbon Tetrachloride	117	7.463	7.463	(0.845)	452364	50.0000	52.8	
36	6 Tetrahydrofuran	42	7.499	7.506	(0.917)	540049	250.000	222	
\$ 37	7 Dibromofluoromethane	113	7.542	7.549	(0.922)	277264	50.0000	41.1	
38	8 1,1,1-Trichloroethane	97	7.556	7.564	(0.924)	550603	50.0000	47.4	
39	9 1,1-Dichloropropene	75	11.002	11.003	(1.245)	519198	50.0000	50.2	
40	0 2-Butanone	43	7.721	7.721	(0.944)	910802	250.000	243	
41	1 Benzene	78	8.049	8.057	(0.911)	1393494	50.0000	49.9	
* 42	2 Pentafluorobenzene	168	8.178	8.178	(1.000)	884913	50.0000		
43	3 Cyclohexane	56	7.170	7.170	(0.877)	601400	50.0000	49.3	
44	4 Ethyl Methacrylate	69	11.188	11.189	(1.266)	387592	50.0000	43.0	
\$ 45	5 1,2-Dichloroethane-D4	65	8.228	8.228	(1.006)	298357	50.0000	40.8	
46	6 Tertiary-amyl methyl ether	73	8.214	8.214	(1.004)	700584	50.0000	38.8	
47	7 1,2-Dichloroethane	62	8.314	8.314	(0.941)	422767	50.0000	49.6	
48	8 Trichloroethene	95	8.786	8.786	(0.994)	331726	50.0000	49.6	
* 49	9 1,4-Difluorobenzene	114	8.836	8.836	(1.000)	1515094	50.0000		
5(	O Dibromomethane	93	9.301	9.301	(1.053)	218055	50.0000	47.1	
5.	1 1,2-Dichloropropane	63	9.422	9.423	(1.066)	357067	50.0000	49.6	
52	2 Bromodichloromethane	83	9.501	9.501	(1.075)	496292	50.0000	49.5	
53	3 cis-1,3-dichloropropene	75	10.237	10.245	(1.159)	618124	50.0000	50.1	
54	4 1,4-Dioxane	88	9.744	9.737	(1.103)	72118	1000.00	665	
\$ 55	5 Toluene-D8	98	10.452	10.452	(1.183)	973645	50.0000	44.0	
56	6 2-Chloroethylvinylether	63	10.173	10.181	(1.151)	136251	50.0000	46.5	
5	7 Toluene	92	10.509	10.509	(1.189)	838484	50.0000	48.3	
58	8 4-methyl-2-pentanone	43	10.960	10.960	(1.240)	1626569	250.000	242	
59	9 Tetrachloroethene	164	10.960	10.960	(0.888)	252218	50.0000	50.3	
60	0 trans-1,3-Dichloropropene	75	11.002	11.003	(1.245)	519198	50.0000	50.2	
61	1 1,1,2-Trichloroethane	83	11.195	11.196	(1.267)	275814	50.0000	48.8	
62	2 Dibromochloromethane	129	11.403	11.410	(0.924)	344080	50.0000	49.2	
63	3 1,3-Dichloropropane	76	11.524	11.525	(0.934)	584872	50.0000	47.3	
64	4 1,2-Dibromoethane	107	11.696	11.696	(1.324)	325340	50.0000	48.2	
65	5 2-Hexanone	43	11.975	11.975	(0.970)	1250879	250.000	246	
* 66	6 Chlorobenzene-D5	117	12.339	12.340	(1.000)	1477294	50.0000		
6	7 Chlorobenzene	112	12.361	12.361	(1.002)	814100	50.0000	47.0	
152	2 1-Chlorohexane	91	12.325	12.326	(0.999)	536950	50.0000	44.1	
68	8 Ethylbenzene	106	12.390	12.390	(1.004)	490027	50.0000	47.4	
69	9 1,1,1,2-Tetrachloroethane	131	12.440	12.440	(1.008)	318753	50.0000	48.0	
7.	1 m+p-Xylenes	106	12.583	12.583		1157645	100.000	96.5	
72	2 o-Xylene	106	13.155	13.155	(1.066)	561113	50.0000	49.8	
	3 Styrene	104		13.226		1016224	50.0000	49.6	
	4 Bromoform	173		13.269		222367	50.0000	48.5	
	5 Isopropylbenzene	105		13.591		1484179	50.0000	44.8	
	6 P-Bromofluorobenzene	95		13.992		450894	50.0000	43.6	
7	7 cis-1,4-Dichloro-2-Butene	53		14.092		119916	50.0000	37.1	
	8 trans-1,4-Dichloro-2-Butene	53		14.556		108201	50.0000	37.2	
	9 Bromobenzene	156		14.149		363676	50.0000	45.3	
				. =	,				

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				AMOUN	ITS	
QUANT SIG				CAL-AMT	ON-COL	
MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
====	====		======	======	======	========
91	14.184	14.185 (0.904)	1896493	50.0000	44.0	
83	14.291	14.292 (0.911)	463063	50.0000	42.0	
105	14.477	14.478 (0.923)	1407746	50.0000	45.2	
91	14.413	14.413 (0.919)	1184027	50.0000	44.9	
75	14.492	14.492 (0.924)	360863	50.0000	41.1	
91	14.663	14.664 (0.935)	1221673	50.0000	44.3	
119	14.956	14.957 (0.954)	1238822	50.0000	43.0	
117	14.985	14.985 (0.955)	260841	50.0000	38.2	
105	15.064	15.064 (0.960)	1407162	50.0000	45.7	
119	15.457	15.457 (0.985)	1382873	50.0000	45.6	
146	15.571	15.572 (0.993)	640124	50.0000	43.9	
152	15.686	15.686 (1.000)	865137	50.0000		
146	15.714	15.708 (1.002)	702936	50.0000	43.5	
91	16.136	16.137 (1.029)	1569850	50.0000	44.2	
105	15.228	15.229 (0.971)	1669892	50.0000	44.0	
146	16.386	16.387 (1.045)	595403	50.0000	44.4	
75	17.745	17.745 (1.131)	65593	50.0000	37.8	
180	17.802	17.803 (1.135)	401389	50.0000	37.6	
225	18.903	18.904 (1.205)	189256	50.0000	39.6	
180	18.946	18.947 (1.208)	327484	50.0000	38.2	
105	15.750	15.750 (1.004)	1201272	50.0000	38.6	
128	19.533	19.533 (1.245)	665977	50.0000	34.4	
180	19.869	19.869 (1.267)	198922	50.0000	28.8	
43	5.139	5.133 (0.628)	267148	50.0000	37.2	
83	8.764	8.772 (1.072)	451373	50.0000	36.3	
	MASS ==== 91 83 105 91 75 91 119 117 105 119 146 152 146 91 105 146 75 180 225 180 105 128 180 43	MASS RT ==== 91 14.184 83 14.291 105 14.477 91 14.413 75 14.492 91 14.663 119 14.956 117 14.985 105 15.064 119 15.457 146 15.571 152 15.686 146 15.714 91 16.136 105 15.228 146 16.386 75 17.745 180 17.802 225 18.903 180 18.946 105 15.750 128 19.533 180 19.869 43 5.139	MASS RT EXP RT REL RT  ==== ==============================	MASS         RT         EXP RT         REL RT         RESPONSE           ====         ====================================	MASS RT EXP RT REL RT RESPONSE (ug/1)  === ================================	MASS         RT         EXP RT         REL RT         RESPONSE         ( ug/1)         ( ug/1)           ====         ====================================





## Form 7 **Calibration Verification Summary**

Lab Name: Katahdin Analytical Services

**Project**: NAVSTA Newport CTO WE40-04

**SDG:** WE40-1 Lab ID: WG135258-4 **Analytical Date:** 11/27/13 09:16 Lab File ID: D6916.D **Instrument ID:** GCMS-D

**Initial Calibration Date(s):** 11/19/13 10:08 11/19/13 12:52 **Column ID:** 

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
19 Methyl tert-butyl ether	1.47557	1.78411	1.78411	0.010	20.90925	20.00000	Averaged	*
41 Benzene	1.38431	1.55131	1.55131	0.010	12.06394	20.00000	Averaged	
57 Toluene	50.00000	52.40450	0.95935	0.010	4.80899	20.00000	Linear	
68 Ethylbenzene	0.53579	0.57244	0.57244	0.010	6.84055	20.00000	Averaged	
70 Xylenes (total)	++++	0.71466	0.71466	0.010	++++	20.00000	Averaged	
71 m+p-Xylenes	100	107	0.71574	0.010	7.26582	20.00000	Linear	
72 o-Xylene	50.00000	53.06134	0.71248	0.010	6.12267	20.00000	Linear	
37 Dibromofluoromethane	0.50769	0.46216	0.46216	0.010	-8.96895	20.00000	Averaged	
45 1,2-Dichloroethane-D4	0.70683	0.59222	0.59222	0.010	-16.21464	20.00000	Averaged	
55 Toluene-D8	1.14920	1.12864	1.12864	0.010	-1.78912	20.00000	Averaged	
76 P-Bromofluorobenzene	0.46698	0.47726	0.47726	0.010	2.20235	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6916.D

Report Date: 02-Dec-2013 12:21

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6916.D

Lab Smp Id: WG135258-4 Client Smp ID: ontinuing Calibrati

Inj Date : 27-NOV-2013 09:16

Operator : REC Smp Info : WG135258-4,WE40-1 Misc Info : WG135258,WG134694-4,SG9180-1 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF

1.000 Dilution Factor 5.000 sample purged Local Compound V Vo

Local Compound Variable Cpnd Variable

					AMOUN	ITS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.072	2.073 (0.257)	556623	50.0000	54.6	
2 Chloromethane	50	2.308	2.303 (0.287)	694890	50.0000	51.6	
3 Vinyl chloride	62	2.408	2.403 (0.299)	627211	50.0000	57.8	
4 Bromomethane	94	2.801	2.804 (0.348)	248660	50.0000	49.3	
5 Chloroethane	64	2.966	2.961 (0.368)	345182	50.0000	57.7	
6 Trichlorofluoromethane	101	3.145	3.140 (0.391)	696947	50.0000	52.5	
7 Diethyl Ether	59	3.552	3.547 (0.441)	368637	50.0000	56.3	
8 Tertiary-butyl alcohol	59	5.347	5.342 (0.664)	189025	250.000	274	
9 1,1-Dichloroethene	96	3.824	3.819 (0.475)	381628	50.0000	64.9	
10 Carbon Disulfide	76	3.860	3.862 (0.480)	1447425	50.0000	48.5	
11 Freon-113	151	3.888	3.890 (0.483)	230319	50.0000	51.4	
12 Iodomethane	142	4.017	4.019 (0.499)	333932	50.0000	53.8	
13 Acrolein	56	4.303	4.304 (0.535)	425521	250.000	312	
14 Methylene Chloride	84	4.696	4.691 (0.583)	528045	50.0000	53.1	
15 Acetone	43	4.775	4.770 (0.593)	941115	250.000	327	
16 Isobutyl Alcohol	43	8.243	8.238 (1.024)	387013	1000.00	1140	
17 trans-1,2-Dichloroethene	96	4.975	4.970 (0.618)	438843	50.0000	58.6	
18 Allyl Chloride	41	4.532	4.527 (0.563)	654696	50.0000	63.2	
19 Methyl tert-butyl ether	73	5.175	5.170 (0.643)	2729879	100.000	121	
20 Acetonitrile	39	5.533	5.535 (0.687)	153863	500.000	715	
21 Di-isopropyl ether	45	5.819	5.821 (0.723)	1495286	50.0000	60.4	
22 Chloroprene	53	5.947	5.942 (0.739)	599729	50.0000	59.7	
23 Propionitrile	54	7.950	7.945 (0.988)	876919	500.000	683	
24 Methacrylonitrile	41	7.978	7.980 (0.991)	3313224	500.000	576	

Data File:  $\t server \g \chem \gcms-d.i\D112713.b\D6916.D$  Report Date: 02-Dec-2013 12:21

							AMOUN	TS	
		QUANT SIG					CAL-AMT	ON-COL	
Comp	ounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
====		====	====		=======	======	======	======	========
2	5 1,1-Dichloroethane	63	5.976		(0.742)	846349	50.0000	58.6	
2	6 Acrylonitrile	52	6.040	6.035	(0.750)	907933	250.000	316	
	7 Ethyl tertiary-butyl ether	59	6.384		(0.793)	1344858	50.0000	59.3	
	8 Vinyl Acetate	43	6.384	6.386	(0.733)	994609	50.0000	50.2	
	9 cis-1,2-Dichloroethene	96	6.777	6.772	(0.842)	497006	50.0000	60.2	
	0 1,2-Dichloroethylene (total)	96				935849	50.0000	(a)	
3:	1 Methyl Methacrylate	41	9.573	9.575	(1.098)	453863	50.0000	60.6	
	2 2,2-Dichloropropane	77	6.927		(0.861)	611876	50.0000	49.9	
3	3 Bromochloromethane	128	7.049	7.051	(0.876)	214237	50.0000	57.9	
3	4 Chloroform	83	7.170	7.165	(0.891)	814460	50.0000	56.2	
3	5 Carbon Tetrachloride	117	7.349	7.351	(0.843)	540549	50.0000	48.2	
3	6 Tetrahydrofuran	42	7.370	7.373	(0.916)	876192	250.000	289	
\$ 3'	7 Dibromofluoromethane	113	7.413	7.408	(0.921)	353574	50.0000	45.5	
3	8 1,1,1-Trichloroethane	97	7.442	7.437	(0.925)	685179	50.0000	51.2	
3	9 1,1-Dichloropropene	75	7.606	7.608	(0.873)	623842	50.0000	52.0	
4	0 2-Butanone	43	7.578	7.573	(0.941)	1438195	250.000	293	
4	1 Benzene	78	7.928	7.923	(0.910)	1882623	50.0000	56.0	
* 4	2 Pentafluorobenzene	168	8.050	8.052	(1.000)	765055	50.0000		
4	3 Cyclohexane	56	7.063	7.065	(0.877)	716807	50.0000	55.6	
4	4 Ethyl Methacrylate	69	11.074	11.069	(1.271)	676941	50.0000	62.7	
\$ 4	5 1,2-Dichloroethane-D4	65	8.093	8.095	(1.005)	453084	50.0000	41.9	
4	6 Tertiary-amyl methyl ether	73	8.100	8.102	(1.006)	1218210	50.0000	58.8	
4	7 1,2-Dichloroethane	62	8.178	8.180	(0.938)	657761	50.0000	51.3	
4	8 Trichloroethene	95	8.672	8.667	(0.995)	433990	50.0000	53.9	
* 4	9 1,4-Difluorobenzene	114	8.715	8.710	(1.000)	1213568	50.0000		
5	O Dibromomethane	93	9.172	9.167	(1.053)	307621	50.0000	53.6	
5	1 1,2-Dichloropropane	63	9.294	9.289	(1.066)	473361	50.0000	56.3	
5	2 Bromodichloromethane	83	9.372	9.375	(1.075)	647898	50.0000	50.4	
5	3 cis-1,3-dichloropropene	75	10.116	10.118	(1.161)	827711	50.0000	51.5	
5	4 1,4-Dioxane	88	9.615	9.618	(1.103)	96929	1000.00	398	
\$ 5	5 Toluene-D8	98	10.338	10.333	(1.186)	1369678	50.0000	49.1	
5	6 2-Chloroethylvinylether	63	10.395	10.390	(1.193)	149154	50.0000	46.6	
5'	7 Toluene	92	10.395	10.390	(1.193)	1164236	50.0000	52.4	
5	8 4-methyl-2-pentanone	43	10.831	10.826	(1.243)	2632112	250.000	239	
5	9 Tetrachloroethene	164	10.845	10.840	(0.889)	362619	50.0000	52.5	
6	0 trans-1,3-Dichloropropene	75	10.874	10.876	(1.248)	716578	50.0000	49.8	
6	1 1,1,2-Trichloroethane	83	11.060	11.062	(1.269)	379495	50.0000	54.4	
6	2 Dibromochloromethane	129	11.274	11.277	(0.924)	472013	50.0000	53.7	
6	3 1,3-Dichloropropane	76	11.389	11.384	(0.933)	821893	50.0000	53.5	
6	4 1,2-Dibromoethane	107	11.560	11.555	(1.327)	460900	50.0000	55.4	
6	5 2-Hexanone	43	11.839	11.841	(0.970)	1934512	250.000	228	
* 6	6 Chlorobenzene-D5	117	12.204	12.199	(1.000)	1147659	50.0000		
6'	7 Chlorobenzene	112	12.225	12.220	(1.002)	1239668	50.0000	56.0	
15	2 1-Chlorohexane	91	12.204	12.199	(1.000)	574490	50.0000	49.8	
6	8 Ethylbenzene	106	12.261	12.263	(1.005)	656963	50.0000	53.4	
6	9 1,1,1,2-Tetrachloroethane	131	12.304	12.306	(1.008)	424055	50.0000	52.0	
м 7	O Xylenes (total)	106				2460549	150.000	(a)	
7	1 m+p-Xylenes	106	12.454	12.449	(1.021)	1642861	100.000	107	
	o-Xylene	106		13.021		817688	50.0000	53.1	
7	3 Styrene	104	13.090	13.093	(1.073)	1319968	50.0000	48.1	
	4 Bromoform	173		13.121		344646	50.0000	45.2	
7	5 Isopropylbenzene	105		13.450		1986275	50.0000	50.5	
	6 P-Bromofluorobenzene	95		13.843		579187	50.0000	51.1	
	7 cis-1,4-Dichloro-2-Butene	53		13.936		194261	50.0000	57.6	

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6916.D Report Date: 02-Dec-2013 12:21

AMOUNTS OUANT SIG CAL-AMT ON-COL Compounds MASS RT EXP RT REL RT RESPONSE (ug/1) (ug/1)REVIEW CODE ======== 56.2 78 trans-1.4-Dichloro-2-Butene 53 14.392 14.394 (0.927) 187733 50.0000 156 13.991 13.994 (0.901) 534171 50.0000 53.0 79 Bromobenzene 91 14.041 14.044 (0.905) 2377761 50.0000 80 N-Propylbenzene 49 9 83 14.134 14.129 (0.911) 660947 81 1,1,2,2-Tetrachloroethane 50.0000 50.1 14.335 14.330 (0.924) 1672643 82 1,3,5-Trimethylbenzene 105 50.0000 91 83 2-Chlorotoluene 14.263 14.265 (0.919) 1511500 50.0000 50.8 75 14.327 14.330 (0.923) 538816 50.0000 50.0 84 1,2,3-Trichloropropane 91 85 4-Chlorotoluene 14.513 14.508 (0.935) 1580460 50.0000 50.5 119 14.806 14.809 (0.954) 1575573 50.0000 54.0 86 tert-Butylbenzene 87 Pentachloroethane 117 14.828 14.830 (0.955) 341974 50.0000 51.2 105 14.914 14.916 (0.961) 1734509 50.0000 43.2 88 1,2,4-Trimethylbenzene 119 15.307 15.309 (0.986) 1636042 50.0000 89 P-Isopropyltoluene 45.9 146 15.407 15.402 (0.993) 1022980 50.0000 90 1,3-Dichlorobenzene 57.0 152 91 1,4-Dichlorobenzene-D4 15.522 15.517 (1.000) 734010 50.0000 146 92 1,4-Dichlorobenzene 15.543 15.545 (1.001) 1000045 50.0000 47.5 93 N-Butylbenzene 91 15.979 15.974 (1.029) 1498235 50.0000 41.9 105 15.078 15.080 (0.971) 2019387 50.0000 94 sec-Butylbenzene 48 9 95 1,2-Dichlorobenzene 146 16.215 16.210 (1.045) 1032194 50.0000 57.0 96 1,2-Dibromo-3-Chloropropane 75 17.552 17.547 (1.131) 130948 50.0000 46.6 97 1,3,5-Trichlorobenzene 180 17.624 17.619 (1.135) 740003 50.0000 48.6 225 18.732 18.727 (1.207) 278478 50.0000 98 Hexachlorobutadiene 43.3 180 18.753 18.748 (1.208) 713528 50.0000 99 1.2.4-Trichlorobenzene 51.4 105 15.593 15.588 (1.005) 1820557 50.0000 100 1,2,3-Trimethylbenzene 51.6 101 Naphthalene 128 19.333 19.328 (1.246) 2050913 50.0000 19.669 19.664 (1.267) 102 1,2,3-Trichlorobenzene 695329 50.0000 180 50.2 43 5.004 4.999 (0.622) 62.3 103 Methyl Acetate 490442 50.0000 8.665 8.660 (1.076) 104 Methylcyclohexane 83 609758 50.0000 56.2 M 153 Total Alkylbenzenes 100 12514150 50.0000 (a)

#### QC Flag Legend

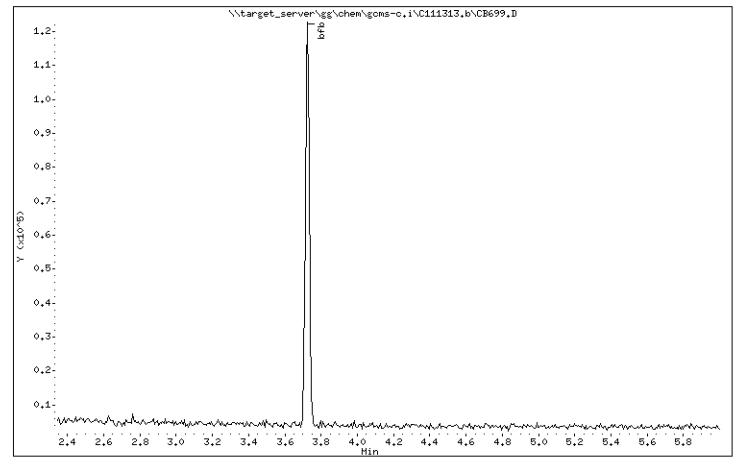
Date : 13-NOV-2013 09:33

Client ID: Instrument: gcms-c.i

Sample Info: WG134365-10,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18



| 176 | 95.00 - 101.00% of mass 174

| 177 | 5.00 - 9.00% of mass 176

Date : 13-NOV-2013 09:33

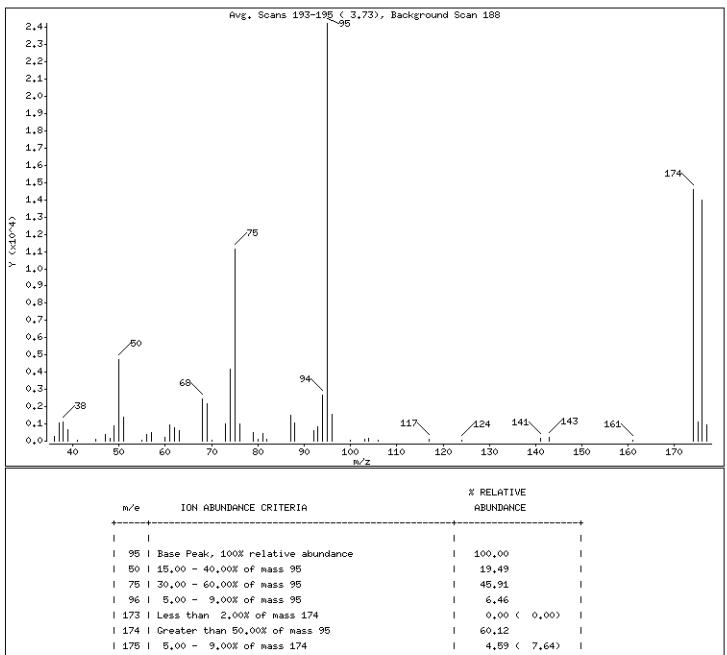
Client ID: Instrument: gcms-c.i

Sample Info: WG134365-10,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

1 bfb



57,65 ( 95,90)

3,80 ( 6,60)

Date : 13-NOV-2013 09:33

Client ID: Instrument: gcms-c.i

Sample Info: WG134365-10,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

		Data File:							
		•	_	ans 193-19	5 ( 3,73)	. Backgrou	und Scan 1:	38	
L		of Maximum;	•						
	Number	of points:	: 49						
	m/z	Y .		Y .		Y	m/z	Y	
1	36,00	·	57,00	·	80.00		   106.00	79	•
- 1	37.00	1082 I	60,00	248 I	81.00	428	117.00	91	
- 1	38,00	1096 l	61,00	974 I	82,00	84	124.00	67	
- 1	39,00	664 I	62,00	801 I	87,00	1520 l	141.00	156	
1	41.00	67 I	=		88.00		143.00  -	233	
-	45,00	•	68,00	•	92,00		+   161,00	81	
- 1	47,00	409 I	69,00	2189 I	93,00	840	174.00	14572	
- 1	48.00	162 l	70.00	70 1	94.00	2652	175.00	1113	
- 1	49,00	878 I	73,00	1014 I	95,00	24240	176.00	13974	
I	50,00	4724 I	74.00		96,00			922	
+	 51.00		75.00	·	100,00	 71	+ I		
	55.00		76.00	977 I		91			

| 56,00 | 401 | 79,00 | 479 | 104,00 | 162 |

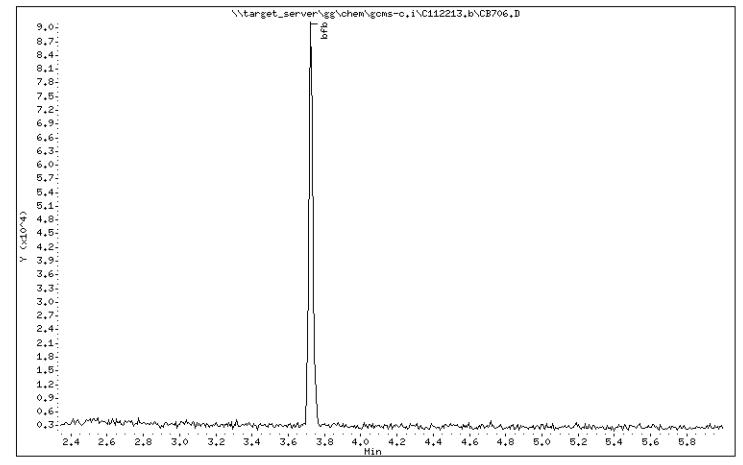
Date : 22-NOV-2013 07:51

Client ID: Instrument: gcms-c.i

Sample Info: WG134916-3, WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18



Date : 22-NOV-2013 07:51

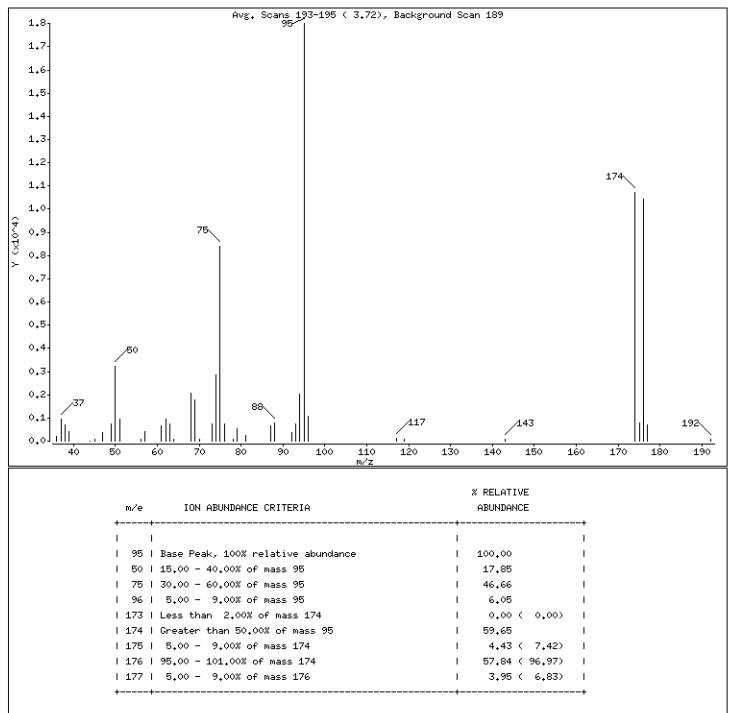
Client ID: Instrument: gcms-c.i

Sample Info: WG134916-3, WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

1 bfb



Date : 22-NOV-2013 07:51

Client ID: Instrument: gcms-c.i

Sample Info: WG134916-3,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

L		Data File: Spectrum: of Maximum: of points:	: Avg. Sc:	ans 193-1	195	i ( 3.72),	Backgrou	und Scan :	189
		Y							
1		197 l				76.00		117.00	
- 1	37,00	944	61.00	678	I	78.00	95	119.00	82
- 1	38.00	701 l	62,00	964	1	79,00	523	143.00	75
- 1	39,00	421 I	63.00	748	I	81.00	250	174.00	10742
1		4 1						· · ·	797
1		+- 95 l				88,00			10416
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ı	49.00	746 I	70.00	82	I	93.00	759	I 192.00	70
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+- I		+- 75 l				96,00			

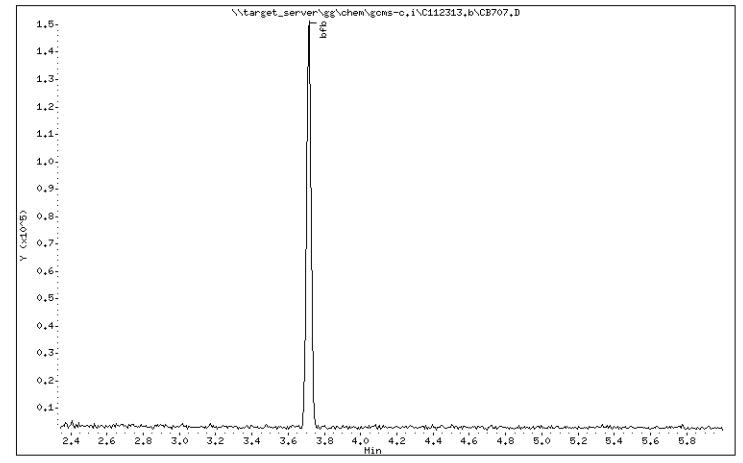
Date : 23-NOV-2013 07:50

Client ID: Instrument: gcms-c.i

Sample Info: WG134993-3,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18



Date : 23-NOV-2013 07:50

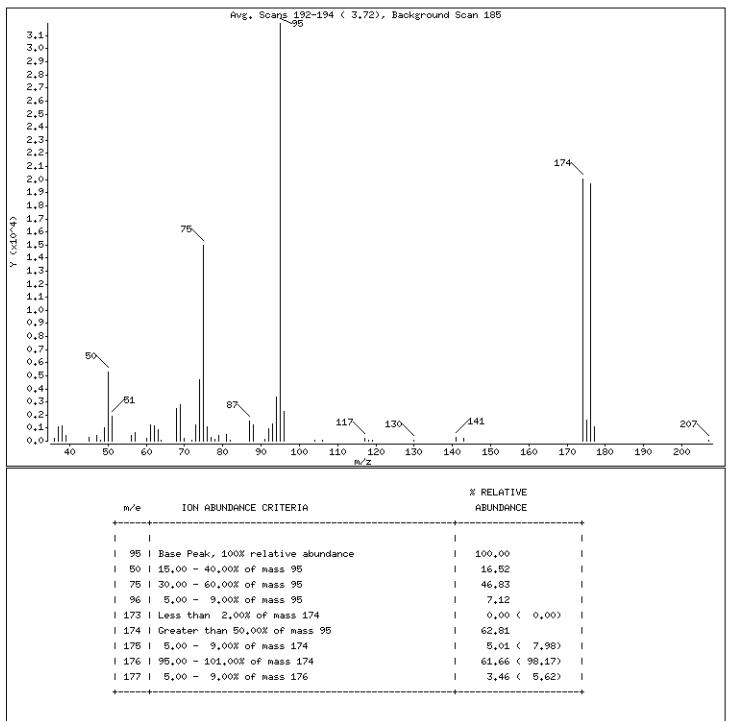
Client ID: Instrument: gcms-c.i

Sample Info: WG134993-3, WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

1 bfb



Date : 23-NOV-2013 07:50

Client ID: Instrument: gcms-c.i

Sample Info: WG134993-3,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

		Data File Spectrum		=	ans 192-19	94	( 3,72),	- Backgro	un	nd Scan 18	35	
L	ocation o	of Maximum	1	95,00								
	Number	of points	:	51								
					Y 							
ı		213 I					78.00			106.00		
-1	37,00	1071 I		62.00	1208 I	ι .	79.00	457	I	117.00	257	
-1	38,00	1184 I		63.00	916	: ۱	B1.00	501	I	118.00	80	
- 1	39,00	464 I		64.00	67 1	۱ :	B2.00	92	I	119,00	87	
1	•				2520 I		-			-		
1					+ 2763 I							
-1	48.00	71 l		70.00	191 I		91.00	111	I	143.00	192	
-1	49.00	1030 l		72.00	85 I	١.	92.00	964	I	174.00	20064	
-1	50,00	5276 I		73.00	1212 I	١.	93.00	1315	I	175.00	1601	
1	51,00			•	4685 I							
+- I					+ 14960 I							
-1	57,00	686 I		76.00	1107 I	١.	96.00	2276	ı	207.00	76	
1	60,00	257 I		77.00	322 I	1-1	04.00	70	ı			

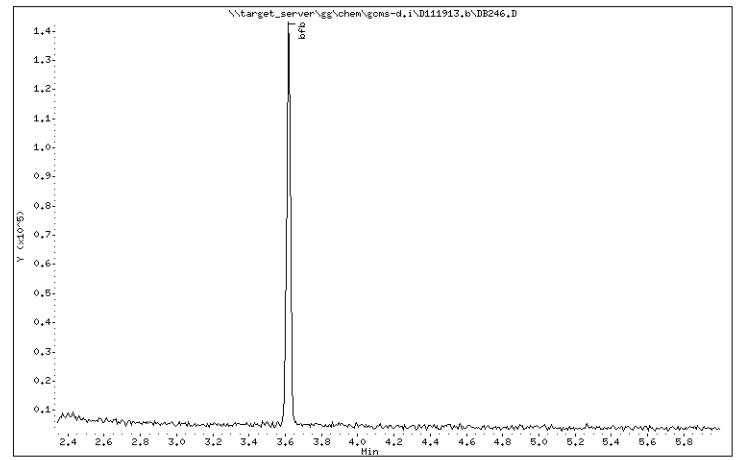
Date : 19-NOV-2013 08:50

Client ID: Instrument: gcms-d.i

Sample Info: WG134694-11,WE40-1

Operator: DJP

Column phase: RTX-VMS Column diameter: 0.18



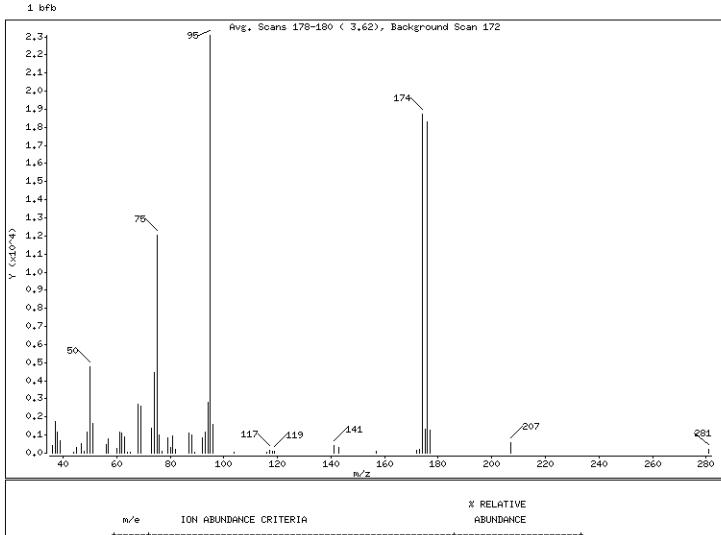
Date : 19-NOV-2013 08:50

Client ID: Instrument: gcms-d.i

Sample Info: WG134694-11,WE40-1

Operator: DJP

Column phase: RTX-VMS Column diameter: 0.18



m∕e	ION ABUNDANCE CRITERIA		ABUNDANCE	
1	 I			+ I
l 95	Base Peak, 100% relative abundance	1	100,00	1
1 50	15.00 - 40.00% of mass 95	1	20,58	1
I 75	30.00 - 60.00% of mass 95	İ	52,29	1
1 96	5.00 - 9.00% of mass 95	1	6,80	1
I 173	l Less than  2.00% of mass 174	1	0.92 ( 1.13)	1
l 174	l Greater than 50.00% of mass 95	1	81.04	1
l 175	5.00 - 9.00% of mass 174	1	5,77 ( 7,12)	1
I 176	95.00 - 101.00% of mass 174	1	79,31 ( 97,86)	1
1 177	5.00 - 9.00% of mass 176	1	5,54 ( 6,99)	1

Date : 19-NOV-2013 08:50

Client ID: Instrument: gcms-d.i

Sample Info: WG134694-11,WE40-1

Operator: DJP

Column phase: RTX-VMS Column diameter: 0.18

		Spectru	m‡	Avg. Sca	ans 178-18	0 (3,62)	, Backgrou	und Scan 1	72
L	ocation o	of Maximu	m‡	95,00					
	Number	of point	s:	54					
	m/z	Y			Υ .		Y		Y
+- I		410				81,00	962	119,00	97
I	37,00	1767	ı	62,00	1120 l	82,00	232	141,00	418
Ι	38,00	1166	I	63,00	898 I	87,00	1114	143,00	332
Ι	39,00	671	I	64,00	70 I	88,00	1020	157,00	86
I	· ·			•		•		172.00	
T-	45,00			68,00				173,00	
I	47,00	518	I	69,00	2614 I	93,00	1166	174.00	18704
I	48.00	94	ı	73,00	1390 l	94.00	2829	175.00	1331
I	49,00	1174	ı	74,00	4431 l	95.00	23080	176.00	18304
I	50,00	4749		75,00		96,00		177,00	
+- I	51,00	1661		76,00		104.00		207,00	
I	56,00	502	ı	77,00	90 I	116,00	71	281,00	196
ı	57,00	820	ı	79,00	838 I	117,00	181		
ı	60.00	274	ı	80.00	336 I	118.00	89 1		

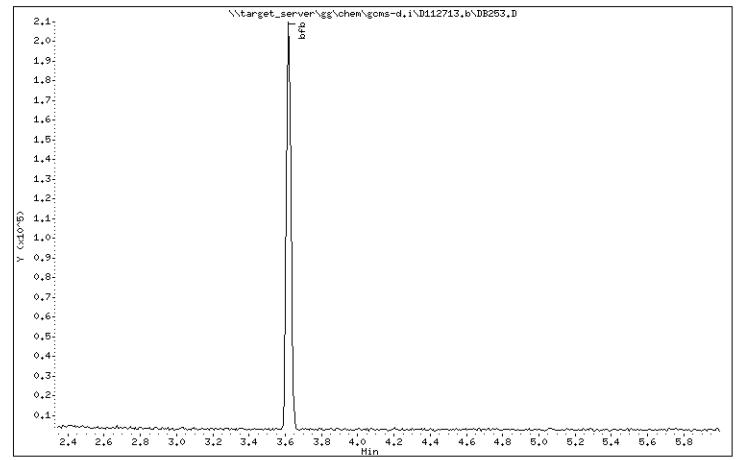
Date : 27-NOV-2013 08:09

Client ID: Instrument: gcms-d.i

Sample Info: WG135258-3,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18



| 177 | 5.00 - 9.00% of mass 176

Date : 27-NOV-2013 08:09

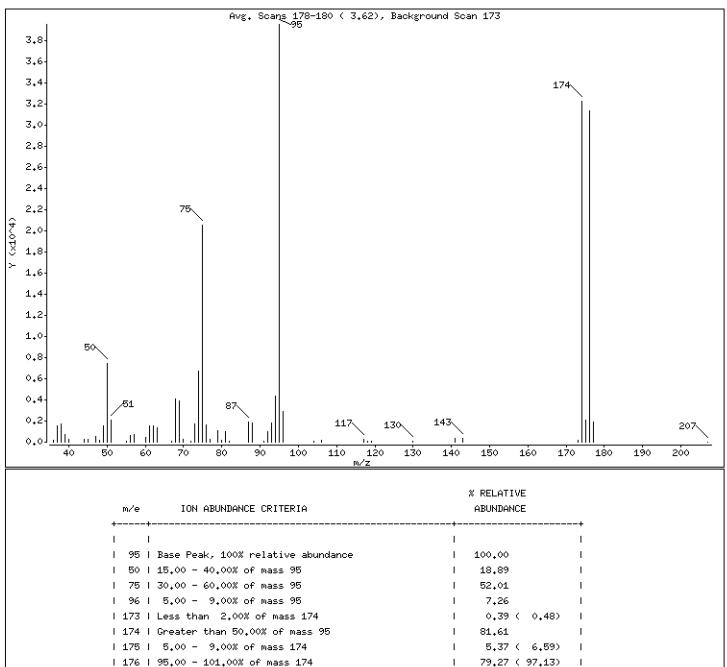
Client ID: Instrument: gcms-d.i

Sample Info: WG135258-3, WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

1 bfb



4,86 ( 6,13)

Date : 27-NOV-2013 08:09

Client ID: Instrument: gcms-d.i

Sample Info: WG135258-3,WE40-1

Operator: REC

Column phase: RTX-VMS Column diameter: 0.18

		Data Fil	-	-	470 4	04	7 7 700	D==1=		. d. C 45	777
		•		•	au2 1/0-1	ov	( 3,62).	. Dackgro	ur	nd Scan 17	'S
		of Maximu		•							
	Number	of point	s:	55							
	m/z	Y		m/z	Υ		m/z	Y		m/z	Y
1	36.00			57,00			77.00	259	+- 	106.00	216
1	37,00	1537	ı	60,00	443	ı	79,00	1107	ı	117,00	289
Τ	38,00	1716	ı	61,00	1520	ı	80,00	153	ı	118,00	93
Τ	39,00	724	ı	62,00	1568	ı	81,00	1028	ı	119,00	101
1	40,00	272	1	63.00	1349	I	82.00	83	l	130,00	75
+- 	44,00	311	+- 	67,00	92	+- 	87,00	1937	+- 	141.00	331
Ι	45,00	269	ı	68,00	4119	ı	88,00	1806	ı	143,00	356
1	47.00	537	ı	69.00	3938	ı	91.00	67	I	173.00	156
1	48.00	185	I	70,00	239	I	92,00	1035	ı	174.00	32312
1	49,00			72,00	74		•			175.00	2128
+- I	50,00			73,00		•				176.00	
ī	51,00	2134	ı	74.00	6749	ı	95,00	39592	ı	177,00	1923
T	55,00	87	ı	75,00	20592	ı	96,00	2874	ı	207,00	2
ı	56.00	599	ı	76.00	1625	L	104.00	87	ı		

# **Raw QC Data Section**





## **Report of Analytical Results**

**Client:** 

Lab ID: WG134916-2

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: C4422.D

**Sample Date: Received Date:** 

Extract Date: 22-NOV-13

**Extracted By:**REC

Extraction Method: SW846 5030

Lab Prep Batch: WG134916

**Analysis Date:** 22-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		87.6	%					
Toluene-d8		91.4	%					
1,2-Dichloroethane-d4		97.5	%					
Dibromofluoromethane		92.4	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4422.D

Report Date: 02-Dec-2013 12:01

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4422.D

Lab Smp Id: WG134916-2 Client Smp ID: WG134916-Blank

Inj Date : 22-NOV-2013 11:04

Operator : REC Smp Info : WG134916-2,WE40-1 Inst ID: gcms-c.i

Misc Info: WG134916, WG134365-4, SG9044-10

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112213.b\C826A90.m

Meth Date: 02-Dec-2013 12:00 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 6 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

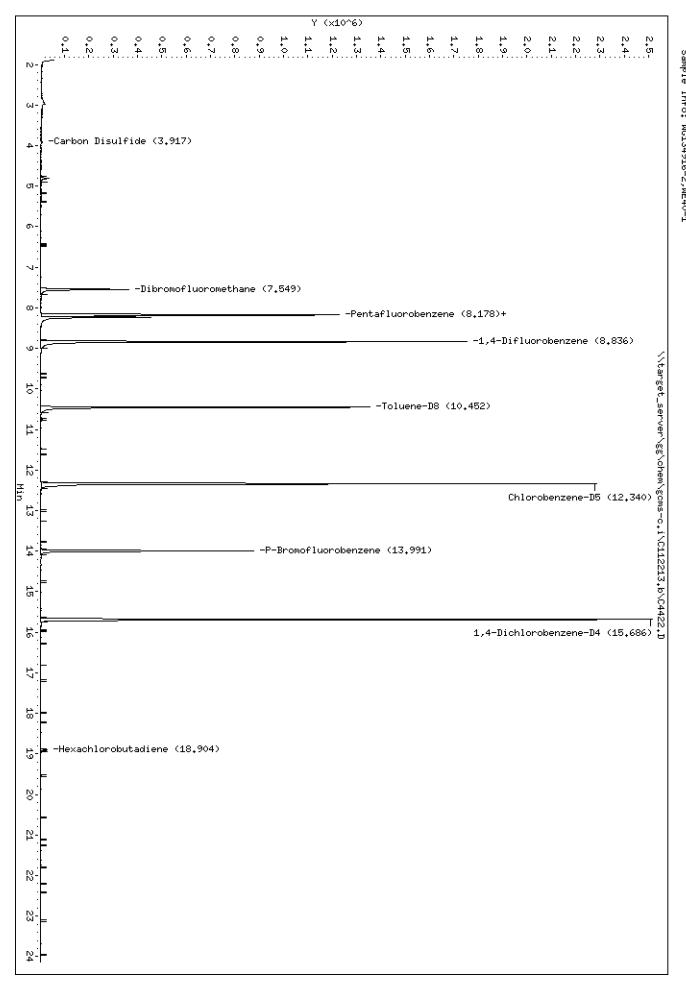
Name	Value	Description
DF Vo		Dilution Factor sample purged
Cond Variable		I agal Compound Variable

Local Compound Variable Cpnd Variable

							CONCENTRA	ATIONS	
		QUANT SIG					ON-COLUMN	FINAL	
Cor	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
===	=======================================	====	====		: ======	======	======	======	========
	10 Carbon Disulfide	76	3.916	3.917	(0.479)	9523	0.59500	0.59(a)	
\$	37 Dibromofluoromethane	113	7.549	7.549	(0.923)	242928	46.1884	46.2	
*	42 Pentafluorobenzene	168	8.178	8.178	(1.000)	689584	50.0000		
\$	45 1,2-Dichloroethane-D4	65	8.228	8.228	(1.006)	277923	48.7631	48.8	
*	49 1,4-Difluorobenzene	114	8.836	8.836	(1.000)	1233132	50.0000		
\$	55 Toluene-D8	98	10.452	10.452	(1.183)	823286	45.6968	45.7	
*	66 Chlorobenzene-D5	117	12.339	12.340	(1.000)	1220551	50.0000		
\$	76 P-Bromofluorobenzene	95	13.991	13.992	(1.583)	368767	43.8262	43.8	
*	91 1,4-Dichlorobenzene-D4	152	15.685	15.686	(1.000)	665280	50.0000		
	98 Hexachlorobutadiene	225	18.903	18.904	(1.205)	5256	1.43005	1.4	

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

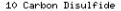


Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4422.D

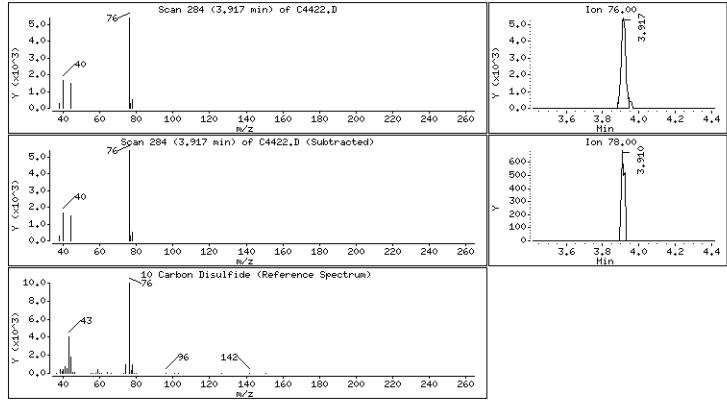
Date : 22-NOV-2013 11:04

Client ID: WG134916-Blank Instrument: gcms-c.i

Sample Info: WG134916-2,WE40-1

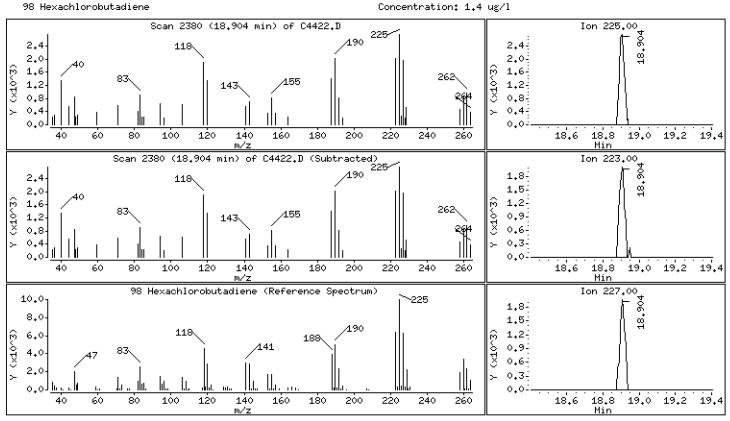


Concentration: 0.59 ug/l



98 Hexachlorobutadiene

Concentration: 1.4 ug/l







## **Report of Analytical Results**

**Client:** 

**Lab ID:** WG134916-5 **Client ID:** Methanol Blank

Project: SDG: WE40-1

Lab File ID: C4423.D

**Sample Date: Received Date:** 

Extract Date: 22-NOV-13

**Extracted By:** REC **Extraction Method:** SW846 5030

Lab Prep Batch: WG134916

**Analysis Date: 22-NOV-13** 

**Analyst: REC** 

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: NA

Compound	Qualifier	Result	Units 1	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	120	ug/Kgdrywt	1	5	250	46.	120
Ethylbenzene	U	120	ug/Kgdrywt	1	5	250	32.	120
Methyl tert-butyl Ether	U	120	ug/Kgdrywt	1	5	250	55.	120
Toluene	U	120	ug/Kgdrywt	1	5	250	70.	120
Xylenes (Total)	U	380	ug/Kgdrywt	1	15	750	65.	380
m+p-Xylenes	U	250	ug/Kgdrywt	1	10	500	85.	250
o-Xylene	U	120	ug/Kgdrywt	1	5	250	65.	120
p-Bromofluorobenzene		88.1	%					
Toluene-D8		92.1	%					
1,2-Dichloroethane-D4		99.0	%					
Dibromofluoromethane		89.9	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4423.D

Report Date: 02-Dec-2013 12:01

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4423.D

Lab Smp Id: WG134916-5 Client Smp ID: WG134916-MeOHBlank

Inj Date : 22-NOV-2013 11:36

Operator : REC Inst ID: gcms-c.i

Smp Info : WG134916-5, WE40-1

Misc Info : WG134916, WG134365-4, SG9044-10

Comment : SW846 5030,MEOH
Method : \Target\_server\gg\chem\gcms-c.i\C112213.b\C826A90.m

Meth Date: 02-Dec-2013 12:00 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 7 QC Sample: MEOHBLANK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

### Concentration Formula:

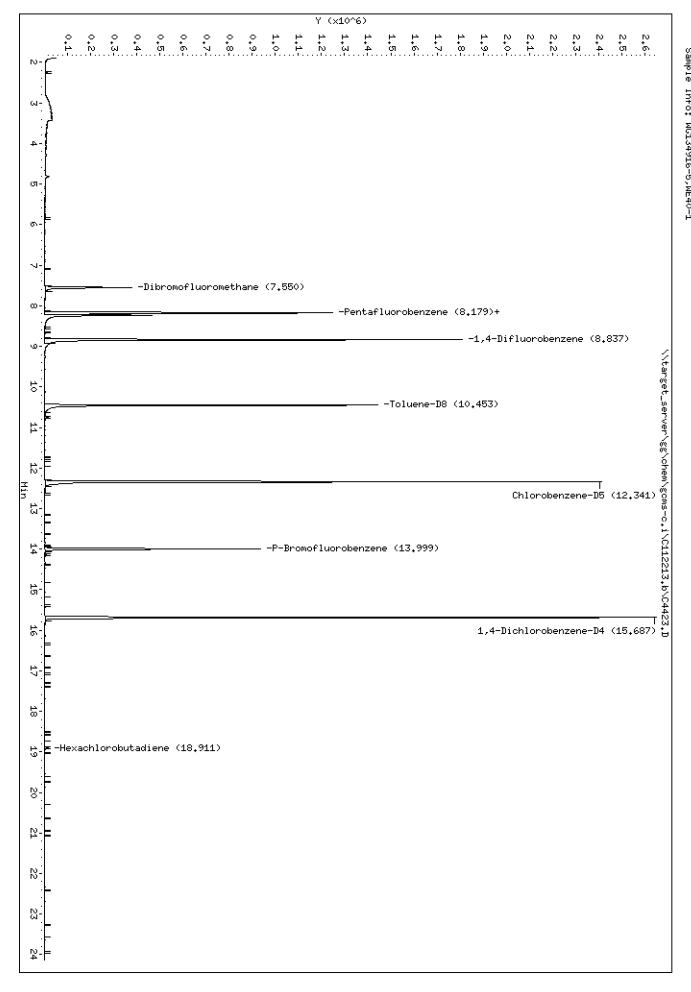
Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description
DF	1 000	Dilution Factor
M		% moisture
Vo	20000.000	Prep Volume (uL)
Ws	5.000	Weight of Sample (g)
Vt		Volume of MeOH (mL)
Va	400.000	
Cpnd Variable		Local Compound Variable

EVIEW COD
-===

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4423.D

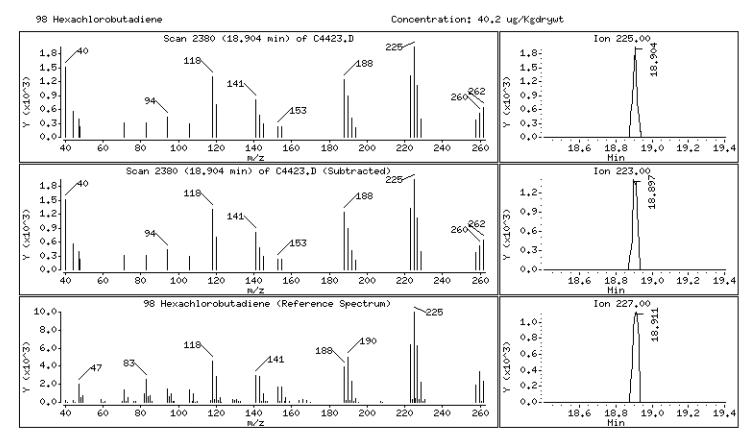
Date : 22-NOV-2013 11:36 Client ID: WG134916-MeOHBlank

Instrument: gcms-c₊i

Sample Info: WG134916-5,WE40-1

#### 98 Hexachlorobutadiene

#### Concentration: 40.2 ug/Kgdrywt







## **Report of Analytical Results**

**Client:** 

Lab ID: WG134993-2

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: C4448.D

**Sample Date: Received Date:** 

Extract Date: 23-NOV-13

**Extracted By:**REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG134993

**Analysis Date:** 23-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		87.0	%					
Toluene-d8		91.7	%					
1,2-Dichloroethane-d4		86.9	%					
Dibromofluoromethane		87.9	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4448.D

Report Date: 02-Dec-2013 12:10

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4448.D

Lab Smp Id: WG134993-2 Client Smp ID: WG134993-Blank

Inj Date : 23-NOV-2013 10:48

Operator : REC Smp Info : WG134993-2,WE40-1 Misc Info : WG134993,WG134365-4,SG9044-1 Inst ID: gcms-c.i

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 5 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

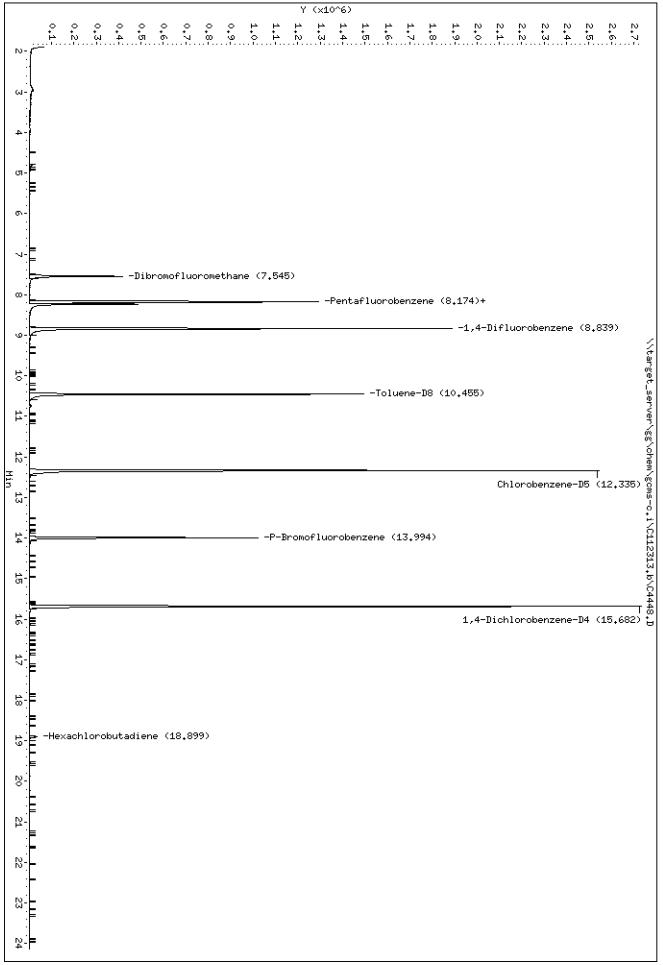
Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged Local Compound V DF Vo

Cpnd Variable Local Compound Variable

							CONCENTRA	ATIONS	
		QUANT SIG					ON-COLUMN	FINAL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	(ug/1)	REVIEW CODE
========	=========	====	====	======	======	======	======	======	========
\$ 37 Dibro	mofluoromethane	113	7.544	7.549	(0.922)	273086	43.9374	43.9	
* 42 Penta	fluorobenzene	168	8.181	8.178	(1.000)	814906	50.0000		
\$ 45 1,2-D	ichloroethane-D4	65	8.231	8.228	(1.006)	292566	43.4380	43.4	
* 49 1,4-D	ifluorobenzene	114	8.838	8.836	(1.000)	1413621	50.0000		
\$ 55 Tolue	ne-D8	98	10.454	10.452	(1.183)	947340	45.8688	45.9	
* 66 Chlor	obenzene-D5	117	12.335	12.340	(1.000)	1390350	50.0000		
\$ 76 P-Bro	mofluorobenzene	95	13.994	13.992	(1.583)	419789	43.5201	43.5	
* 91 1,4-D	ichlorobenzene-D4	152	15.688	15.686	(1.000)	783152	50.0000		
98 Hexac	hlorobutadiene	225	18.906	18.904	(1.205)	7548	1.74456	1.7	



Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4448.D

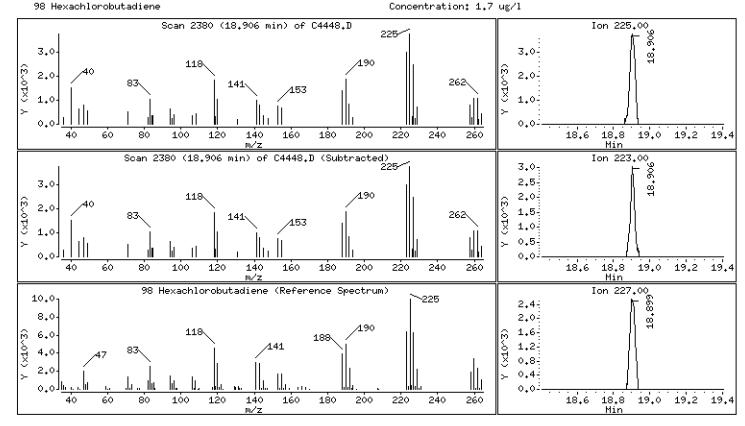
Date : 23-NOV-2013 10:48 Client ID: WG134993-Blank

Instrument: gcms-c₊i

Sample Info: WG134993-2,WE40-1

#### 98 Hexachlorobutadiene

Concentration: 1.7 ug/l







## **Report of Analytical Results**

**Client:** 

Lab ID: WG134993-5 Client ID: Methanol Blank

**Project: SDG:** WE40-1

Lab File ID: C4449.D

**Sample Date: Received Date:** 

Extract Date: 23-NOV-13 **Extracted By:**REC

**Extraction Method:** SW846 5030

Lab Prep Batch: WG134993

**Analysis Date:** 23-NOV-13

**Analyst: REC** 

**Analysis Method:** SW846 8260B

Matrix: SL % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	120	ug/Kgdrywt	1	5	250	46.	120
Ethylbenzene	U	120	ug/Kgdrywt	1	5	250	32.	120
Methyl tert-butyl Ether	U	120	ug/Kgdrywt	1	5	250	55.	120
Toluene	U	120	ug/Kgdrywt	1	5	250	70.	120
Xylenes (Total)	U	380	ug/Kgdrywt	1	15	750	65.	380
m+p-Xylenes	U	250	ug/Kgdrywt	1	10	500	85.	250
o-Xylene	U	120	ug/Kgdrywt	1	5	250	65.	120
p-Bromofluorobenzene		87.4	%					
Toluene-D8		91.6	%					
1,2-Dichloroethane-D4		86.2	%					
Dibromofluoromethane		84.3	%					

Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4449.D

Report Date: 02-Dec-2013 12:10

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4449.D

Lab Smp Id: WG134993-5 Client Smp ID: WG134993-MeOHBlank

Inj Date : 23-NOV-2013 11:22

Operator : REC Inst ID: gcms-c.i

Smp Info : WG134993-5, WE40-1

Misc Info: WG134993, WG134365-4, SG9044-1

Comment : SW846 5030,MEOH
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 6 QC Sample: MEOHBLANK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

### Concentration Formula:

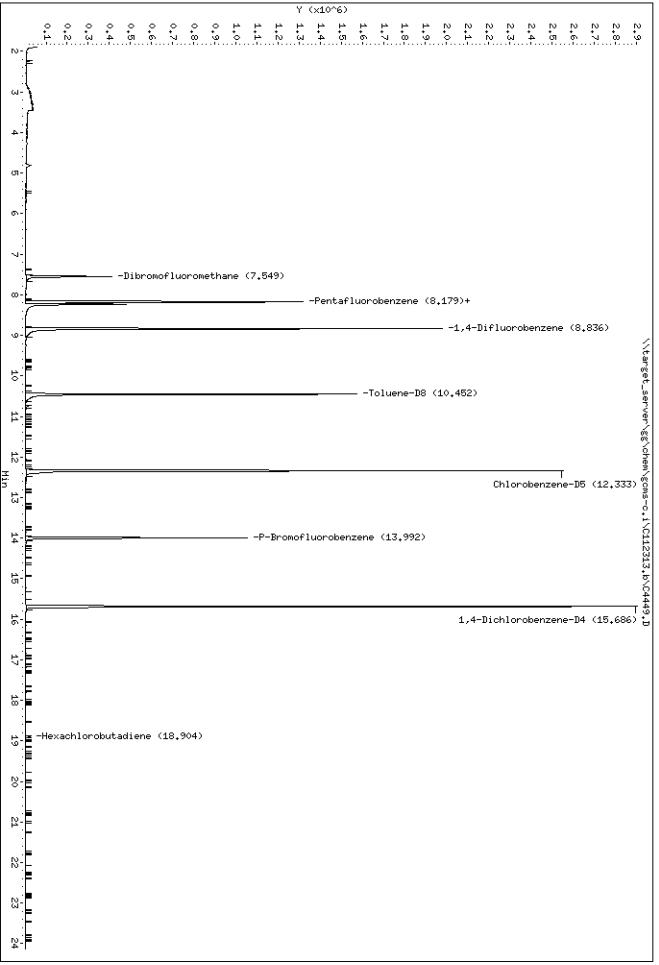
Amt \* DF \* (100/(100-M))\*(Vo/Ws)\*(Vt+(Ws-(((100-M)/100)\*Ws)))/Va \* CpndVariation

Name	Value	Description						
DF	1.000	Dilution Factor						
M	0.00000	% moisture						
Vo	20000.000	Prep Volume (uL)						
Ws	5.000	Weight of Sample (g)						
Vt	5.000	Volume of MeOH (mL)						
Va	400.000	MeOH Aliquot (uL)						
Cpnd Variable		Local Compound Variable						

						CONCENTRA	ATIONS	
	QUANT SIG					ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	(ug/Kgdrywt)	REVIEW COD
	====	====	======	======	======	======	======	=======
\$ 37 Dibromofluoromethane	113	7.549	7.549 (	0.923)	273996	42.1687	2110	
* 42 Pentafluorobenzene	168	8.178	8.178 (	1.000)	851915	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.235	8.228 (	1.007)	303375	43.0861	2150	
* 49 1,4-Difluorobenzene	114	8.836	8.836 (	1.000)	1491466	50.0000		
\$ 55 Toluene-D8	98	10.452	10.452 (	1.183)	997748	45.7881	2290	
* 66 Chlorobenzene-D5	117	12.339	12.340 (	1.000)	1482601	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.991	13.992 (	1.583)	444990	43.7249	2190	
* 91 1,4-Dichlorobenzene-D4	152	15.686	15.686 (	1.000)	819455	50.0000		
98 Hexachlorobutadiene	225	18.910	18.904 (	1.206)	4384	0.96838	48.4(a)	

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4449.D

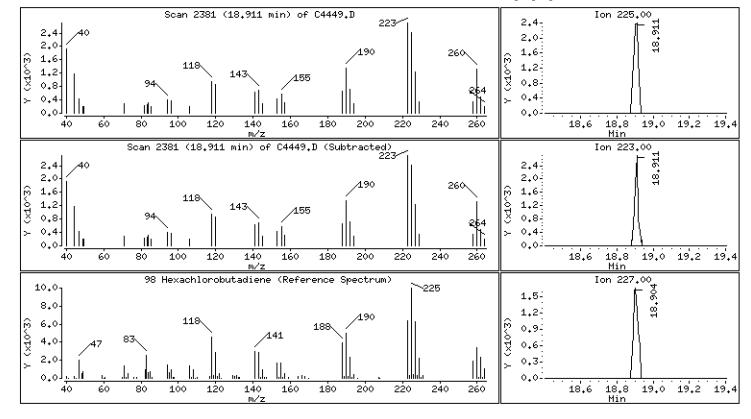
Date : 23-NOV-2013 11:22 Client ID: WG134993-Me0HBlank

Instrument: gcms-c.i

Sample Info: WG134993-5,WE40-1

#### 98 Hexachlorobutadiene

#### Concentration: 48.4 ug/Kgdrywt







## **Report of Analytical Results**

**Client:** 

Lab ID: WG135258-2

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: D6921.D

**Sample Date: Received Date:** 

Extract Date: 27-NOV-13

**Extracted By:**REC

**Extraction Method:** SW846 5030 **Lab Prep Batch:** WG135258

**Analysis Date:** 27-NOV-13

**Analyst: REC** 

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
P-Bromofluorobenzene		98.6	%					
Toluene-d8		100.	%					
1,2-Dichloroethane-d4		94.4	%					
Dibromofluoromethane		96.1	%					

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6921.D

Report Date: 02-Dec-2013 12:21

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6921.D

Lab Smp Id: WG135258-2 Client Smp ID: WG135258-Blank

Inj Date : 27-NOV-2013 12:47

Operator : REC Smp Info : WG135258-2,WE40-1 Misc Info : WG135258,WG134694-4,SG9180-1 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D Als bottle: 7 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name	Value	Description
DF Vo		Dilution Factor sample purged
Cpnd Variable		Local Compound Variable

		CONCENTRATIONS					
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		=======	======	======	========
14 Methylene Chloride	84	4.703	4.691 (0.584)	16715	2.05138	2.0(a)	
\$ 37 Dibromofluoromethane	113	7.413	7.408 (0.921)	325454	48.0415	48.0	
* 42 Pentafluorobenzene	168	8.049	8.052 (1.000)	667183	50.0000		
\$ 45 1,2-Dichloroethane-D4	65	8.092	8.095 (1.005)	445260	47.2086	47.2	
* 49 1,4-Difluorobenzene	114	8.714	8.710 (1.000)	1103862	50.0000		
\$ 55 Toluene-D8	98	10.337	10.333 (1.186)	1275057	50.2562	50.2	
* 66 Chlorobenzene-D5	117	12.204	12.199 (1.000)	1026047	50.0000		
\$ 76 P-Bromofluorobenzene	95	13.841	13.843 (1.588)	508510	49.3243	49.3	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	613603	50.0000		

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6921.D

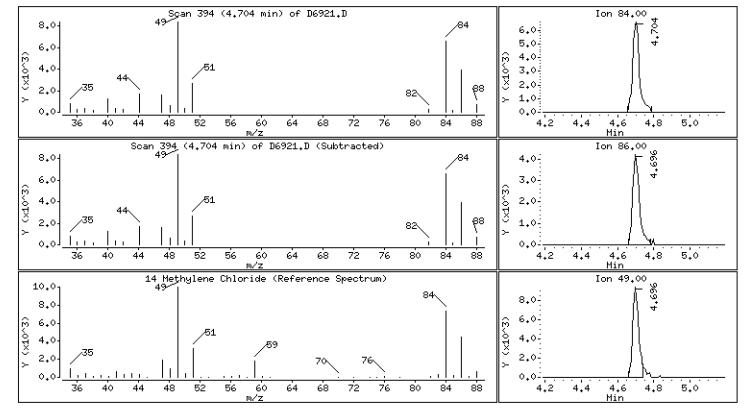
Date : 27-NOV-2013 12:47 Client ID: WG135258-Blank

Client ID: WG135258-Blank Instrument: gcms-d.i

Sample Info: WG135258-2,WE40-1



Concentration: 2.0 ug/l







# **LCS Recovery Report**

**Client:** 

**Lab ID:** WG134916-1 **Client ID:** LCS

Project: SDG: WE40-1

LCS File ID: C4418.D

**Sample Date: Received Date:** 

Extract Date: 22-NOV-13

Extracted By: REC
Extraction Method: SW846 5030

Lab Prep Batch: WG134916

**Analysis Date:** 22-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

Compound	Recovery (%)	Conc Added	Conc Recovere	d Conc Units	Limits
Benzene	105.	50.0	52.6	ug/L	80-120
Ethylbenzene	98.4	50.0	49.2	ug/L	75-125
Methyl tert-butyl Ether	93.6	100.	93.6	ug/L	65-125
Toluene	102.	50.0	51.1	ug/L	75-120
Xylenes (total)	107.	150.	160.	ug/L	89-116
o-Xylene	110.	50.0	55.2	ug/L	80-120
M+P-Xylenes	104.	100.	104.	ug/L	75-130
P-Bromofluorobenzene	91.2				75-120
Toluene-d8	90.7				85-120
1,2-Dichloroethane-d4	90.0				70-120
Dibromofluoromethane	85.8				85-115

Data File: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4418.D

Report Date: 02-Dec-2013 12:01

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112213.b\C4418.D

Lab Smp Id: WG134916-1 Client Smp ID: WG134916-LCS

Inj Date : 22-NOV-2013 08:59

Operator : REC Smp Info : WG134916-1,WE40-1 Misc Info : WG134916,WG134365-4,SG9044-10 Inst ID: gcms-c.i

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112213.b\C826A90.m

Meth Date: 02-Dec-2013 12:00 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 2 QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description DF 1.000 Dilution Factor
Vo 5.000 sample purged
Cpnd Variable Local Compound T

Local Compound Variable

						CONCENTRA	ATIONS	
		QUANT SIG				ON-COLUMN	FINAL	
Compo	ounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=====	=======================================	====	====	=======================================	=======	======	======	========
1	Dichlorodifluoromethane	85	2.052	2.051 (0.251)	283871	32.0821	32.1	
2	Chloromethane	50	2.302	2.301 (0.281)	420313	35.3065	35.3	
3	Vinyl chloride	62	2.402	2.401 (0.294)	348920	39.4340	39.4	
4	Bromomethane	94	2.817	2.816 (0.344)	205862	44.4733	44.5	
5	Chloroethane	64	2.974	2.980 (0.364)	112023	26.0445	26.0(R)	
6	Trichlorofluoromethane	101	3.160	3.166 (0.386)	457996	49.7742	49.8	
7	Diethyl Ether	59	3.611	3.602 (0.441)	220104	40.8076	40.8	
8	Tertiary-butyl alcohol	59	5.498	5.490 (0.672)	114784	191.618	192	
9	1,1-Dichloroethene	96	3.882	3.881 (0.475)	269268	58.1979	58.2	
10	Carbon Disulfide	76	3.911	3.917 (0.478)	959879	53.6387	53.6	
11	Freon-113	151	3.947	3.946 (0.483)	128068	43.7133	43.7	
12	Iodomethane	142	4.090	4.089 (0.500)	296063	66.2019	66.2	
13	Acrolein	56	4.412	4.410 (0.539)	187704	169.871	170	
14	Methylene Chloride	84	4.812	4.811 (0.588)	366447	50.1220	50.1	
15	Acetone	43	4.912	4.904 (0.601)	106558	47.2575	47.2	
16	Isobutyl Alcohol	43	8.380	8.379 (1.024)	206658	819.879	820	
17	trans-1,2-Dichloroethene	96	5.091	5.090 (0.622)	299828	49.1908	49.2	
18	Allyl Chloride	41	4.626	4.632 (0.566)	447214	38.8349	38.8(R)	
19	Methyl tert-butyl ether	73	5.291	5.290 (0.647)	1495427	93.6538	93.6	
20	Acetonitrile	39	5.699	5.697 (0.697)	90337	408.471	408	
21	Di-isopropyl ether	45	5.942	5.940 (0.726)	930013	40.5904	40.6	
22	Chloroprene	53	6.070	6.069 (0.742)	414662	43.6826	43.7	
23	Propionitrile	54	8.101	8.106 (0.990)	409603	389.248	389	
24	Methacrylonitrile	41	8.130	8.128 (0.994)	1788472	380.762	381(R)	

Data File:  $\t server \g \chem \gcms-c.i\C112213.b\C4418.D$  Report Date: 02-Dec-2013 12:01

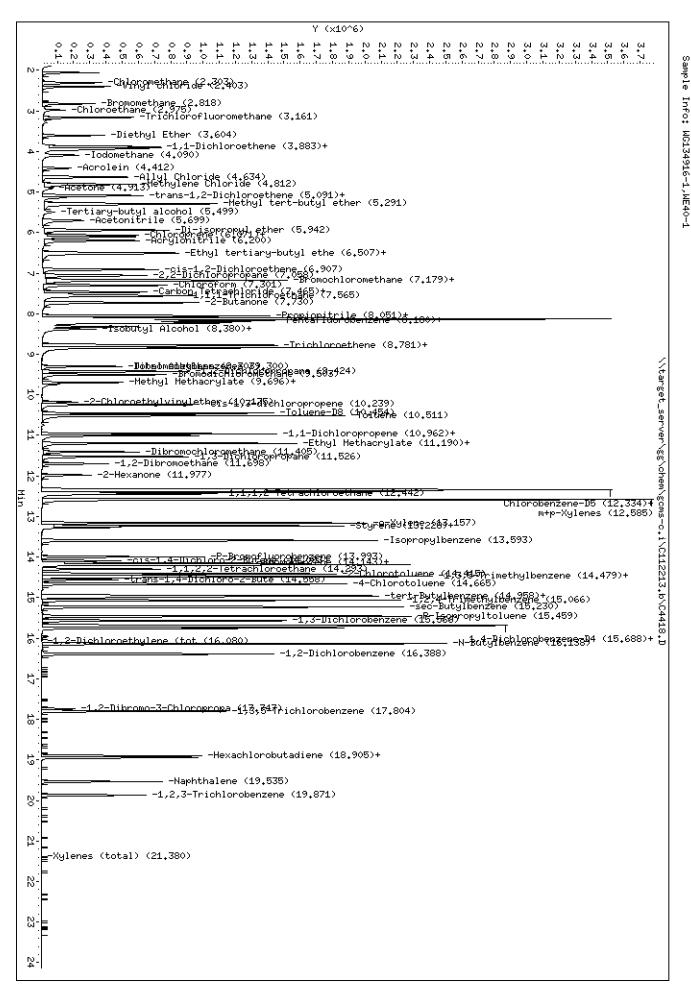
						CONCENTR	ATIONS	
	QUANT SIG					ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====	======	=======	======	======	======	========
25 1,1-Dichloroethane	63	6.106	6.105	(0.747)	629429	52.4623	52.5	
26 Acrylonitrile	52	6.199	6.198	(0.758)	446325	195.169	195	
27 Ethyl tertiary-butyl ether	59	6.499	6.498	(0.795)	783927	43.0713	43.1	
28 Vinyl Acetate	43	6.521	6.520	(0.738)	811714	63.3229	63.3	
29 cis-1,2-Dichloroethene	96	6.907	6.913	(0.844)	332016	48.5227	48.5	
M 30 1,2-Dichloroethylene (total)	96				631844	97.7134	97.7	
31 Methyl Methacrylate	41	9.695	9.694	(1.097)	244741	42.5334	42.5	
32 2,2-Dichloropropane	77	7.057	7.056	(0.863)	494491	55.0386	55.0	
33 Bromochloromethane	128	7.186	7.185	(0.879)	135899	49.8151	49.8	
34 Chloroform	83	7.300	7.299	(0.892)	642216	53.5554	53.6	
35 Carbon Tetrachloride	117	7.465	7.463	(0.845)	450651	59.8611	59.9	
36 Tetrahydrofuran	42	7.508	7.506	(0.918)	93089	43.9404	43.9	
\$ 37 Dibromofluoromethane	113	7.543	7.549	(0.922)	252148	42.8777	42.9	
38 1,1,1-Trichloroethane	97	7.565	7.564	(0.925)	560355	55.3292	55.3	
39 1,1-Dichloropropene	75	11.004	11.003	(1.245)	512569	56.4148	56.4	
40 2-Butanone	43	7.729	7.721	(0.945)	143773	44.1013	44.1	
41 Benzene	78	8.051	8.057	(0.911)	1289291	52.5860	52.6	
* 42 Pentafluorobenzene	168	8.180	8.178	(1.000)	771021	50.0000		
43 Cyclohexane	56	7.171	7.170	(0.877)	603911	56.8634	56.9	
44 Ethyl Methacrylate	69	11.190	11.189	(1.266)	349163	44.1051	44.1	
\$ 45 1,2-Dichloroethane-D4	65	8.230		(1.006)	286918	45.0242	45.0	
46 Tertiary-amyl methyl ether	73	8.215		(1.004)	664372	42.2291	42.2	
47 1,2-Dichloroethane	62	8.315		(0.941)	433234	57.8685	57.9	
48 Trichloroethene	95	8.787		(0.994)	326951	55.7218	55.7	
* 49 1,4-Difluorobenzene	114	8.837		(1.000)	1330784	50.0000		
50 Dibromomethane	93	9.302		(1.053)	203248	49.9847	50.0	
51 1,2-Dichloropropane	63	9.424		(1.066)	327741	51.8904	51.9	
52 Bromodichloromethane	83	9.502		(1.075)	505414	57.4267	57.4	
53 cis-1,3-dichloropropene	75	10.239			563515	52.0053	52.0	
54 1,4-Dioxane	88	9.746		(1.103)	72252	777.479	777	
\$ 55 Toluene-D8	98	10.453	10.452		882140	45.3706	45.4	
56 2-Chloroethylvinylether	63	10.175	10.181		90845	35.3122	35.3	
57 Toluene	92	10.511	10.509		778911	51.0728	51.1	
58 4-methyl-2-pentanone	43		10.960		303484	51.3410	51.3	
59 Tetrachloroethene	164		10.960		231673	52.4504	52.4	
60 trans-1,3-Dichloropropene	75		11.003		512569	56.4148	56.4	
61 1,1,2-Trichloroethane	83		11.196		253084	50.9703	51.0	
62 Dibromochloromethane	129		11.410		327920	53.1574	53.2	
63 1,3-Dichloropropane	76		11.525		561384	51.5296	51.5	
64 1,2-Dibromoethane	107		11.696		293207	49.4183	49.4	
65 2-Hexanone	43		11.975		215998	48.1529	48.2	
* 66 Chlorobenzene-D5	117		12.340		1302536	50.0000	10.2	
67 Chlorobenzene	112		12.361		812044	53.2025	53.2	
152 1-Chlorohexane	91		12.326		515881	48.0889	48.1	
68 Ethylbenzene	106		12.390		448270	49.2378	49.2	
69 1,1,1,2-Tetrachloroethane	131		12.440		304145	51.9788	52.0	
M 70 Xylenes (total)	106	-0,TT	140	, ,	1652219	159.585	160	
71 m+p-Xylenes	106	12 59/	12.583	(1.020)	11032219	104.327	104	
72 o-Xylene	106		13.155		548971	55.2581	55.2	
73 Styrene	104		13.133		932110	51.6322	51.6	
74 Bromoform	173		13.220		207128	51.0322	51.3	
75 Isopropylbenzene	105		13.591		1503473	52.3663	52.4	
\$ 76 P-Bromofluorobenzene	95		13.992		414290	45.6235	45.6	
77 cis-1,4-Dichloro-2-Butene	53		14.092		112152	40.0740	40.1	
// CIB I, I-DICHIOIO-Z-Butelle	J	17.023	14.034	(0.050)	TT7727	40.0/40	40.T	

Data File:  $\t server \g \end{math} C112213.b\C4418.D$  Report Date: 02-Dec-2013 12:01

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.558	14.556 (0.928)	104730	41.6120	41.6	
79 Bromobenzene	156	14.143	14.149 (0.902)	332182	47.8324	47.8	
80 N-Propylbenzene	91	14.186	14.185 (0.904)	1988506	53.3265	53.3	
81 1,1,2,2-Tetrachloroethane	83	14.293	14.292 (0.911)	419688	43.9709	44.0	
82 1,3,5-Trimethylbenzene	105	14.479	14.478 (0.923)	1306885	48.4235	48.4	
83 2-Chlorotoluene	91	14.415	14.413 (0.919)	1201271	52.6215	52.6	
84 1,2,3-Trichloropropane	75	14.493	14.492 (0.924)	338148	44.4952	44.5	
85 4-Chlorotoluene	91	14.665	14.664 (0.935)	1269054	53.1846	53.2	
86 tert-Butylbenzene	119	14.958	14.957 (0.954)	1259309	50.4920	50.5	
87 Pentachloroethane	117	14.987	14.985 (0.955)	253079	42.8556	42.8	
88 1,2,4-Trimethylbenzene	105	15.065	15.064 (0.960)	1342652	50.3305	50.3	
89 P-Isopropyltoluene	119	15.458	15.457 (0.985)	1418554	53.9928	54.0	
90 1,3-Dichlorobenzene	146	15.566	15.572 (0.992)	651527	51.5633	51.6	
* 91 1,4-Dichlorobenzene-D4	152	15.687	15.686 (1.000)	749009	50.0000		
92 1,4-Dichlorobenzene	146	15.709	15.708 (1.001)	660401	47.2444	47.2	
93 N-Butylbenzene	91	16.138	16.137 (1.029)	1609819	52.4051	52.4	
94 sec-Butylbenzene	105	15.230	15.229 (0.971)	1766386	53.7174	53.7	
95 1,2-Dichlorobenzene	146	16.388	16.387 (1.045)	597448	51.4057	51.4	
96 1,2-Dibromo-3-Chloropropane	75	17.747	17.745 (1.131)	63754	42.3876	42.4	
97 1,3,5-Trichlorobenzene	180	17.804	17.803 (1.135)	391626	42.4339	42.4	
98 Hexachlorobutadiene	225	18.905	18.904 (1.205)	214692	51.8835	51.9	
99 1,2,4-Trichlorobenzene	180	18.948	18.947 (1.208)	317372	42.7165	42.7	
100 1,2,3-Trimethylbenzene	105	15.752	15.750 (1.004)	1168449	43.3223	43.3	
101 Naphthalene	128	19.534	19.533 (1.245)	604245	36.0855	36.1	
102 1,2,3-Trichlorobenzene	180	19.870	19.869 (1.267)	206169	34.8535	34.8	
103 Methyl Acetate	43	5.141	5.133 (0.629)	211651	33.8456	33.8(R)	
104 Methylcyclohexane	83	8.773	8.772 (1.073)	479036	44.2456	44.2	
M 153 Total Alkylbenzenes	100			10692111	362.688	363	

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.







# **LCS Recovery Report**

**Client:** 

**Lab ID:** WG134993-1 **Client ID:** LCS

Project:

**SDG:** WE40-1

LCS File ID: C4445.D

Sample Date: Analysis Date: 23-NOV-13

Received Date: Analyst: REC

**Extract Date:** 23-NOV-13 **Analysis Method:** SW846 8260B

**Extracted By:** REC **Matrix:** AQ **Extraction Method:** SW846 5030 **% Solids:** NA

Lab Prep Batch: WG134993 Report Date: 02-DEC-13

Compound	Recovery (%)	Conc Added	Conc Recovere	ed Conc Units	Limits
Benzene	102.	50.0	50.8	ug/L	80-120
Ethylbenzene	98.0	50.0	49.0	ug/L	75-125
Methyl tert-butyl Ether	93.8	100.	93.8	ug/L	65-125
Toluene	99.2	50.0	49.6	ug/L	75-120
Xylenes (total)	106.	150.	159.	ug/L	89-116
o-Xylene	110.	50.0	55.2	ug/L	80-120
M+P-Xylenes	104.	100.	104.	ug/L	75-130
P-Bromofluorobenzene	91.0				75-120
Toluene-d8	93.3				85-120
1,2-Dichloroethane-d4	86.3				70-120
Dibromofluoromethane	86.1				85-115

Data File: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4445.D

Report Date: 02-Dec-2013 12:10

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gcms-c.i\C112313.b\C4445.D

Lab Smp Id: WG134993-1 Client Smp ID: WG134993-LCS

Inj Date : 23-NOV-2013 08:57

Operator : REC Smp Info : WG134993-1,WE40-1 Misc Info : WG134993,WG134365-4,SG9044-1 Inst ID: gcms-c.i

Comment : SW846 5030,AQ
Method : \Target\_server\gg\chem\gcms-c.i\C112313.b\C826A90.m

Meth Date: 02-Dec-2013 12:06 gcms-c.i Quant Type: ISTD Cal Date : 13-NOV-2013 12:38 Cal File: C4233.D Als bottle: 2 QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: SW8260-S.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor
5.000 sample purged
Local Compound N

Vo Cpnd Variable Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.052	2.051 (0.251)	281550	28.4404	28.4	
2 Chloromethane	50	2.302	2.301 (0.281)	474821	35.6891	35.7	
3 Vinyl chloride	62	2.402	2.401 (0.294)	382713	38.7029	38.7	
4 Bromomethane	94	2.817	2.816 (0.344)	225008	43.4957	43.5	
5 Chloroethane	64	2.974	2.980 (0.364)	92526	17.5489	17.5(R)	
6 Trichlorofluoromethane	101	3.160	3.166 (0.386)	462488	44.9746	45.0	
7 Diethyl Ether	59	3.604	3.602 (0.441)	229596	38.0892	38.1(R)	
8 Tertiary-butyl alcohol	59	5.498	5.490 (0.672)	141742	211.258	211	
9 1,1-Dichloroethene	96	3.875	3.881 (0.474)	295025	57.0567	57.0	
10 Carbon Disulfide	76	3.911	3.917 (0.478)	1055844	52.7942	52.8	
11 Freon-113	151	3.947	3.946 (0.483)	129704	39.6142	39.6	
12 Iodomethane	142	4.090	4.089 (0.500)	344372	68.9031	68.9	
13 Acrolein	56	4.411	4.410 (0.539)	212059	171.722	172	
14 Methylene Chloride	84	4.805	4.811 (0.587)	407507	49.8541	49.8	
15 Acetone	43	4.912	4.904 (0.601)	144235	57.2375	57.2	
16 Isobutyl Alcohol	43	8.380	8.379 (1.024)	255559	907.222	907	
17 trans-1,2-Dichloroethene	96	5.091	5.090 (0.622)	349282	51.2758	51.3	
18 Allyl Chloride	41	4.626	4.632 (0.566)	477918	37.1351	37.1(R)	
19 Methyl tert-butyl ether	73	5.291	5.290 (0.647)	1673344	93.7713	93.8	
20 Acetonitrile	39	5.698	5.697 (0.697)	101714	411.530	412	
21 Di-isopropyl ether	45	5.934	5.940 (0.726)	1028788	40.1777	40.2(R)	
22 Chloroprene	53	6.070	6.069 (0.742)	412626	38.8951	38.9	
23 Propionitrile	54	8.101	8.106 (0.990)	475308	404.169	404	
24 Methacrylonitrile	41	8.130	8.128 (0.994)	1958173	371.636	372(R)	

Data File:  $\t server \g \chem \gcms-c.i\C112313.b\C4445.D$  Report Date: 02-Dec-2013 12:10

				CONCENTRATIONS			
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	(ug/1)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
25 1,1-Dichloroethane	63	6.106	6.105 (0.747)	656015	48.9259	48.9	
26 Acrylonitrile	52	6.199	6.198 (0.758)	495528	193.888	194	
27 Ethyl tertiary-butyl ether	59	6.499	6.498 (0.795)	825485	40.5832	40.6(R)	
28 Vinyl Acetate	43	6.521	6.520 (0.738)	891942	61.3165	61.3	
29 cis-1,2-Dichloroethene	96	6.907	6.913 (0.844)	373385	48.8278	48.8	
M 30 1,2-Dichloroethylene (total)	) 96			722667	100.104	100	
31 Methyl Methacrylate	41	9.695	9.694 (1.097)	279123	42.7467	42.7	
32 2,2-Dichloropropane	77	7.057	7.056 (0.863)	530884	52.8730	52.9	
33 Bromochloromethane	128	7.186	7.185 (0.879)	150178	49.2579	49.2	
34 Chloroform	83	7.300	7.299 (0.892)	672490	50.1802	50.2	
35 Carbon Tetrachloride	117	7.465	7.463 (0.845)	465404	54.4775	54.5	
36 Tetrahydrofuran	42	7.507	7.506 (0.918)	128414	54.2379	54.2	
\$ 37 Dibromofluoromethane	113	7.543	7.549 (0.922)	283011	43.0630	43.1	
38 1,1,1-Trichloroethane	97	7.565	7.564 (0.925)	582603	51.4741	51.5	
39 1,1-Dichloropropene	75	11.004	11.003 (1.245)	555221	53.8504	53.8	
40 2-Butanone	43	7.722	7.721 (0.944)	202799	55.6628	55.7	
41 Benzene	78	8.051	8.057 (0.911)	1414740	50.8485	50.8	
* 42 Pentafluorobenzene	168	8.180	8.178 (1.000)	861671	50.0000		
43 Cyclohexane	56	7.171	7.170 (0.877)	657115	55.3638	55.4	
44 Ethyl Methacrylate	69	11.190	11.189 (1.266)	396205	44.1025	44.1	
\$ 45 1,2-Dichloroethane-D4	65	8.230	8.228 (1.006)	307212	43.1371	43.1	
46 Tertiary-amyl methyl ether	73	8.215	8.214 (1.004)	713229	40.5652	40.6	
47 1,2-Dichloroethane	62	8.315	8.314 (0.941)	448764	52.8227	52.8	
48 Trichloroethene	95	8.787	8.786 (0.994)	356378	53.5225	53.5	
* 49 1,4-Difluorobenzene	114	8.837	8.836 (1.000)	1510166	50.0000		
50 Dibromomethane	93	9.302	9.301 (1.053)	220090	47.6974	47.7	
51 1,2-Dichloropropane	63	9.424	9.423 (1.066)	369836	51.5998	51.6	
52 Bromodichloromethane	83	9.502	9.501 (1.075)	528030	52.8698	52.9	
53 cis-1,3-dichloropropene	75	10.239	10.245 (1.159)	608595	49.4941	49.5	
54 1,4-Dioxane	88	9.738	9.737 (1.102)	81735	774.543	774	
\$ 55 Toluene-D8	98	10.453	10.452 (1.183)	1029538	46.6619	46.7	
56 2-Chloroethylvinylether	63	10.174	10.181 (1.151)	102362	35.0627	35.1	
57 Toluene	92	10.511	10.509 (1.189)	858584	49.6098	49.6	
58 4-methyl-2-pentanone	43	10.961	10.960 (1.240)	399345	59.5333	59.5	
59 Tetrachloroethene	164	10.961	10.960 (0.889)	255389	51.1518	51.2	
60 trans-1,3-Dichloropropene	75	11.004	11.003 (1.245)	555221	53.8504	53.8	
61 1,1,2-Trichloroethane	83	11.190	11.196 (1.266)	287769	51.0716	51.1	
62 Dibromochloromethane	129	11.404	11.410 (0.925)	370207	53.0916	53.1	
63 1,3-Dichloropropane	76		11.525 (0.934)	616364	50.0518	50.0	
64 1,2-Dibromoethane	107	11.697	11.696 (1.324)	341729	50.7550	50.8	
65 2-Hexanone	43	11.976	11.975 (0.971)	299848	59.1370	59.1	
* 66 Chlorobenzene-D5	117	12.334	12.340 (1.000)	1472327	50.0000		
67 Chlorobenzene	112	12.362	12.361 (1.002)	907470	52.5981	52.6	
152 1-Chlorohexane	91	12.327	12.326 (0.999)	568394	46.8738	46.9	
68 Ethylbenzene	106	12.391	12.390 (1.005)	504259	49.0003	49.0	
69 1,1,1,2-Tetrachloroethane	131	12.441	12.440 (1.009)	340787	51.5245	51.5	
M 70 Xylenes (total)	106			1860410	158.979	159	
71 m+p-Xylenes	106		12.583 (1.020)	1240870	103.809	104	
72 o-Xylene	106		13.155 (1.067)	619540	55.1698	55.2	
73 Styrene	104		13.226 (1.072)	1039604	50.9456	50.9	
74 Bromoform	173		13.269 (1.076)	238394	52.2118	52.2	
75 Isopropylbenzene	105		13.591 (0.866)	1626210	50.4942	50.5	
\$ 76 P-Bromofluorobenzene	95		13.992 (1.583)	468741	45.4883	45.5	
77 cis-1,4-Dichloro-2-Butene	53	14.093	14.092 (0.898)	125081	39.8433	39.8	

Data File:  $\t server \g \chem \gcms-c.i\C112313.b\C4445.D$  Report Date: 02-Dec-2013 12:10

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.558	14.556 (0.928)	116343	41.2094	41.2	
79 Bromobenzene	156	14.150	14.149 (0.902)	373188	47.9052	47.9	
80 N-Propylbenzene	91	14.186	14.185 (0.904)	2119691	50.6754	50.7	
81 1,1,2,2-Tetrachloroethane	83	14.293	14.292 (0.911)	493571	46.0996	46.1	
82 1,3,5-Trimethylbenzene	105	14.479	14.478 (0.923)	1408183	46.5143	46.5	
83 2-Chlorotoluene	91	14.415	14.413 (0.919)	1294746	50.5610	50.6	
84 1,2,3-Trichloropropane	75	14.493	14.492 (0.924)	381954	44.8050	44.8	
85 4-Chlorotoluene	91	14.665	14.664 (0.935)	1375916	51.4051	51.4	
86 tert-Butylbenzene	119	14.958	14.957 (0.954)	1369346	48.9454	48.9	
87 Pentachloroethane	117	14.987	14.985 (0.955)	274849	41.4910	41.5	
88 1,2,4-Trimethylbenzene	105	15.065	15.064 (0.960)	1452729	48.5469	48.5	
89 P-Isopropyltoluene	119	15.458	15.457 (0.985)	1546175	52.4635	52.5	
90 1,3-Dichlorobenzene	146	15.566	15.572 (0.992)	725849	51.2110	51.2	
* 91 1,4-Dichlorobenzene-D4	152	15.687	15.686 (1.000)	840191	50.0000		
92 1,4-Dichlorobenzene	146	15.709	15.708 (1.001)	735676	46.9178	46.9	
93 N-Butylbenzene	91	16.138	16.137 (1.029)	1705318	49.4893	49.5	
94 sec-Butylbenzene	105	15.230	15.229 (0.971)	1910970	51.8074	51.8	
95 1,2-Dichlorobenzene	146	16.388	16.387 (1.045)	671484	51.5058	51.5	
96 1,2-Dibromo-3-Chloropropane	75	17.746	17.745 (1.131)	78986	46.8155	46.8	
97 1,3,5-Trichlorobenzene	180	17.804	17.803 (1.135)	419785	40.5487	40.5	
98 Hexachlorobutadiene	225	18.905	18.904 (1.205)	214593	46.2315	46.2	
99 1,2,4-Trichlorobenzene	180	18.941	18.947 (1.207)	375721	45.0818	45.1	
100 1,2,3-Trimethylbenzene	105	15.752	15.750 (1.004)	1232372	40.7336	40.7(R)	
101 Naphthalene	128	19.534	19.533 (1.245)	814855	43.3819	43.4	
102 1,2,3-Trichlorobenzene	180	19.870	19.869 (1.267)	261295	39.7470	39.7	
103 Methyl Acetate	43	5.141	5.133 (0.629)	252764	36.1678	36.2	
104 Methylcyclohexane	83	8.766	8.772 (1.072)	496851	41.0632	41.1	
M 153 Total Alkylbenzenes	100			11512412	348.442	348	

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.





# **LCS Recovery Report**

**Client:** 

**Lab ID:** WG135258-1

**Client ID:** LCS

Project: SDG: WE40-1

LCS File ID: D6918.D

**Sample Date: Received Date:** 

Extract Date: 27-NOV-13

**Extracted By:** REC **Extraction Method:** SW846 5030

Lab Prep Batch: WG135258

**Analysis Date:** 27-NOV-13

Analyst: REC

**Analysis Method:** SW846 8260B

Matrix: AQ % Solids: NA

**Report Date:** 02-DEC-13

Compound	Recovery (%)	Conc Added	Conc Recovere	d Conc Units	Limits
Benzene	114.	50.0	56.8	ug/L	80-120
Ethylbenzene	106.	50.0	52.9	ug/L	75-125
Methyl tert-butyl Ether	* 125.	100.	125.	ug/L	65-125
Toluene	106.	50.0	53.1	ug/L	75-120
Xylenes (total)	104.	150.	156.	ug/L	89-116
o-Xylene	102.	50.0	51.2	ug/L	80-120
M+P-Xylenes	105.	100.	105.	ug/L	75-130
P-Bromofluorobenzene	102.				75-120
Toluene-d8	99.4				85-120
1,2-Dichloroethane-d4	83.1				70-120
Dibromofluoromethane	88.5				85-115

Data File: \\target\_server\gg\chem\gcms-d.i\D112713.b\D6918.D

Report Date: 02-Dec-2013 12:21

#### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gcms-d.i\D112713.b\D6918.D

Lab Smp Id: WG135258-1 Client Smp ID: WG135258-LCS

Inj Date : 27-NOV-2013 10:44

Operator : REC Smp Info : WG135258-1,WE40-1 Misc Info : WG135258,WG134394-4,SG9180-1 Inst ID: gcms-d.i

Comment : SW846 5030 Method : \target\_server\gg\chem\gcms-d.i\D112713.b\D826A38.m

Meth Date: 02-Dec-2013 12:14 gcms-d.i Quant Type: ISTD Cal Date : 19-NOV-2013 12:52 Cal File: D6755.D Als bottle: 4 QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* 5/Vo \* CpndVariable

Name Value Description 1.000 Dilution Factor 5.000 sample purged Local Compound V Vo

Cpnd Variable Local Compound Variable

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
=======================================	====	====		======	======	======	========
1 Dichlorodifluoromethane	85	2.071	2.073 (0.257)	507955	48.7351	48.7	
2 Chloromethane	50	2.307	2.303 (0.287)	656544	47.6976	47.7	
3 Vinyl chloride	62	2.407	2.403 (0.299)	580956	52.3253	52.3	
4 Bromomethane	94	2.800	2.804 (0.348)	258747	50.1673	50.2	
5 Chloroethane	64	2.965	2.961 (0.368)	337222	55.1581	55.2	
6 Trichlorofluoromethane	101	3.144	3.140 (0.391)	681027	50.1626	50.2	
7 Diethyl Ether	59	3.551	3.547 (0.441)	383512	57.3440	57.3	
8 Tertiary-butyl alcohol	59	5.346	5.342 (0.664)	220746	320.265	320	
9 1,1-Dichloroethene	96	3.823	3.819 (0.475)	388372	64.6496	64.6	
10 Carbon Disulfide	76	3.859	3.862 (0.479)	1602181	52.8662	52.9	
11 Freon-113	151	3.887	3.890 (0.483)	239637	52.3811	52.4	
12 Iodomethane	142	4.023	4.019 (0.500)	359268	56.5639	56.6	
13 Acrolein	56	4.302	4.304 (0.535)	454744	326.346	326	
14 Methylene Chloride	84	4.695	4.691 (0.583)	529298	51.9893	52.0	
15 Acetone	43	4.774	4.770 (0.593)	188891	64.2311	64.2	
16 Isobutyl Alcohol	43	8.242	8.238 (1.024)	443329	1280.54	1280	
17 trans-1,2-Dichloroethene	96	4.974	4.970 (0.618)	435786	56.8751	56.9	
18 Allyl Chloride	41	4.531	4.527 (0.563)	693965	65.4796	65.5(R)	
19 Methyl tert-butyl ether	73	5.174	5.170 (0.643)	2888157	125.129	125(R)	
20 Acetonitrile	39	5.532	5.535 (0.687)	169798	771.778	772(R)	
21 Di-isopropyl ether	45	5.818	5.821 (0.723)	1567625	61.9167	61.9(R)	
22 Chloroprene	53	5.947	5.942 (0.739)	628427	61.2350	61.2	
23 Propionitrile	54	7.949	7.945 (0.988)	938839	715.715	716(R)	
24 Methacrylonitrile	41	7.984	7.980 (0.992)	3432897	583.974	584	

Data File:  $\t server \g \chem \gcms-d.i\D112713.b\D6918.D$  Report Date: 02-Dec-2013 12:21

								CONCENTR	ATIONS	
			QUANT SIG					ON-COLUMN	FINAL	
	mpounds		MASS	RT	EXP RT		RESPONSE	( ug/l)	( ug/l)	REVIEW COD
==		oichloroethane	==== 63	5.975		= ======= (0.742)	855538	====== 57.9407	====== 57.9	========
	•	lonitrile	52	6.039		(0.750)	963051	327.716	328(R)	
		tertiary-butyl ether	59	6.383		(0.793)	1419443	61.1969	61.2(R)	
		L Acetate	43	6.383		(0.733)	1277360	63.8325	63.8	
	_	1,2-Dichloroethene	96	6.776		(0.842)	492540	58.3963	58.4	
νſ		Dichloroethylene (total)	96	0.770	0.772	(0.012)	928326	115.271	115	
•		yl Methacrylate	41	9.572	9 575	(1.098)	483927	64.0895	64.1(R)	
		Dichloropropane	77	6.926		(0.861)	604596	48.2294	48.2	
		ochloromethane	128	7.048		(0.876)	221426	58.5519	58.6	
	34 Chlor		83	7.169		(0.891)	826588	55.8148	55.8	
		on Tetrachloride	117	7.348		(0.843)	551713	48.8202	48.8	
		ahydrofuran	42	7.377		(0.916)	179872	59.0981	59.1	
5		omofluoromethane	113	7.412		(0.921)	351490	44.2601	44.3	
,		L-Trichloroethane	97	7.412		(0.921)	692377	50.6049	50.6	
		Dichloropropene	75	7.605		(0.873)	619821	51.2393	51.2	
	40 2-But		43	7.584		(0.942)	277320	55.6117	55.6	
	40 Z-But		78	7.927		(0.942)	1925029	56.8591	56.8	
									50.8	
`		afluorobenzene	168	8.049		(1.000)	782118	50.0000	60.7	
	43 Cyclo		56	7.062		(0.877)	799933	60.6941	60.7	
		Methacrylate	69	11.073		(1.271)	704453	64.7948	64.8(R)	
5	•	Dichloroethane-D4	65	8.092		(1.005)	459320	41.5427	41.5	
		lary-amyl methyl ether	73	8.099		(1.006)	1279886	60.4748	60.5	
		Dichloroethane	62	8.184		(0.939)	651918	50.5040	50.5	
		nloroethene	95	8.671		(0.995)	438972	54.1003	54.1	
•		Difluorobenzene	114	8.714		(1.000)	1222853	50.0000		
		omomethane	93	9.171		(1.053)	302819	52.3541	52.4	
		Dichloropropane	63	9.293		(1.066)	488223	57.6570	57.6	
		odichloromethane	83	9.371		(1.075)	668906	51.5951	51.6	
		1,3-dichloropropene	75		10.118		801663	49.5499	49.5	
	54 1,4-I		88	9.615		(1.103)	115388	485.470	485	
þ	55 Tolue		98	10.337		(1.186)	1396802	49.6976	49.7	
	56 2-Chl	loroethylvinylether	63	10.394	10.390	(1.193)	148617	46.1068	46.1	
	57 Tolue	ene	92	10.394	10.390	(1.193)	1189127	53.1262	53.1	
	58 4-met	thyl-2-pentanone	43	10.830	10.826	(1.243)	538275	50.1973	50.2	
	59 Tetra	achloroethene	164	10.844	10.840	(0.889)	373943	52.8109	52.8	
	60 trans	s-1,3-Dichloropropene	75	10.873	10.876	(1.248)	727076	50.1745	50.2	
	61 1,1,2	2-Trichloroethane	83	11.059	11.062	(1.269)	385256	54.8579	54.8	
	62 Dibro	omochloromethane	129	11.273	11.277	(0.924)	474114	52.6873	52.7	
	63 1,3-I	Dichloropropane	76	11.388	11.384	(0.933)	829964	52.6916	52.7	
	64 1,2-I	Dibromoethane	107	11.559	11.555	(1.327)	464016	55.3094	55.3	
	65 2-Hex	kanone	43	11.845	11.841	(0.971)	371946	47.6667	47.7	
ŀ	66 Chlor	robenzene-D5	117	12.203	12.199	(1.000)	1175967	50.0000		
	67 Chlor	robenzene	112	12.224	12.220	(1.002)	1224464	53.9692	54.0	
	152 1-Chl	lorohexane	91	12.203	12.199	(1.000)	619300	52.4223	52.4	
	68 Ethyl	lbenzene	106	12.260	12.263	(1.005)	666400	52.8832	52.9	
	69 1,1,1	1,2-Tetrachloroethane	131	12.303	12.306	(1.008)	430540	51.5566	51.6	
1	70 Xyler	nes (total)	106				2462204	156.560	156	
	71 m+p->	Kylenes	106	12.453	12.449	(1.021)	1654510	105.381	105	
	72 o-Xyl	lene	106	13.018	13.021	(1.067)	807694	51.1788	51.2	
	73 Styre	ene	104	13.089	13.093	(1.073)	1376715	48.9831	49.0	
	74 Bromo	oform	173	13.118	13.121	(1.075)	350556	44.9210	44.9	
	75 Isopr	ropylbenzene	105	13.454	13.450	(0.867)	1988860	49.8847	49.9	
\$	76 P-Bro	omofluorobenzene	95	13.840	13.843	(1.588)	585415	51.2585	51.2	
	77 -1 - 1	4 Diebless 2 Duter:	F 2	12 222	12 026	(0.000)	000514	E0 2002	FO 4	

77 cis-1,4-Dichloro-2-Butene 53 13.933 13.936 (0.898) 202514 59.3703 59.4

Data File:  $\t server \g \chem \gcms-d.i\D112713.b\D6918.D$  Report Date: 02-Dec-2013 12:21

					CONCENTRA	ATIONS	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ug/l)	( ug/l)	REVIEW CODE
	====	====		= ======	======	======	========
78 trans-1,4-Dichloro-2-Butene	53	14.391	14.394 (0.927)	189881	56.2086	56.2	
79 Bromobenzene	156	13.990	13.994 (0.901)	552955	54.2628	54.3	
80 N-Propylbenzene	91	14.040	14.044 (0.905)	2388442	49.4657	49.5	
81 1,1,2,2-Tetrachloroethane	83	14.133	14.129 (0.911)	673355	50.4609	50.5	
82 1,3,5-Trimethylbenzene	105	14.334	14.330 (0.924)	1666531	43.5740	43.6	
83 2-Chlorotoluene	91	14.262	14.265 (0.919)	1490745	49.4521	49.4	
84 1,2,3-Trichloropropane	75	14.326	14.330 (0.923)	553329	50.7220	50.7	
85 4-Chlorotoluene	91	14.505	14.508 (0.935)	1589783	50.2132	50.2	
86 tert-Butylbenzene	119	14.806	14.809 (0.954)	1567776	53.1176	53.1	
87 Pentachloroethane	117	14.827	14.830 (0.955)	348085	51.5022	51.5	
88 1,2,4-Trimethylbenzene	105	14.913	14.916 (0.961)	1803186	44.5488	44.5	
89 P-Isopropyltoluene	119	15.306	15.309 (0.986)	1698356	47.1705	47.2	
90 1,3-Dichlorobenzene	146	15.406	15.402 (0.993)	1017580	56.0505	56.0	
* 91 1,4-Dichlorobenzene-D4	152	15.521	15.517 (1.000)	742549	50.0000		
92 1,4-Dichlorobenzene	146	15.542	15.545 (1.001)	1031835	48.4320	48.4	
93 N-Butylbenzene	91	15.978	15.974 (1.029)	1542636	42.6722	42.7	
94 sec-Butylbenzene	105	15.077	15.080 (0.971)	2000027	47.8089	47.8	
95 1,2-Dichlorobenzene	146	16.214	16.210 (1.045)	1023952	55.8897	55.9	
96 1,2-Dibromo-3-Chloropropane	75	17.551	17.547 (1.131)	136418	47.9725	48.0	
97 1,3,5-Trichlorobenzene	180	17.623	17.619 (1.135)	776661	50.4357	50.4	
98 Hexachlorobutadiene	225	18.731	18.727 (1.207)	284161	43.6479	43.6	
99 1,2,4-Trichlorobenzene	180	18.752	18.748 (1.208)	746048	53.1435	53.1	
100 1,2,3-Trimethylbenzene	105	15.592	15.588 (1.005)	1877820	52.6570	52.6	
101 Naphthalene	128	19.332	19.328 (1.246)	2117827	41.0803	41.1	
102 1,2,3-Trichlorobenzene	180	19.668	19.664 (1.267)	709093	50.6374	50.6	
103 Methyl Acetate	43	5.003	4.999 (0.622)	440104	54.7136	54.7	
104 Methylcyclohexane	83	8.664	8.660 (1.076)	618191	55.7438	55.7	
M 153 Total Alkylbenzenes	100			12666954	328.358	328	

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.



KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION:

GCMS-C INSTRUMENT RUNLOG

0000011	-	r	QAMS533	1/06/2009	VOA-002 - Revision 1 - 11/06/2009
EPA 624 EPA 524	SW846 8260 SIM (heated purge)			V912	LCS/MS MIX EXTRAS MIX
OLC 03.2	SW846 8260 SIM	V413/ V9135	SS MIX	V713) V9136	CAL. STD.
OLM 04.2	SW846 8260	V9134	IS MIX	V1075	BFB
	Circle Methods:	CODE	STANDARD	CODE	STANDARD
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	) /\/	<i>↑</i>		61 1 94	P & 1
	.3			81 1 54	S68819-1 A
	N			21 1 hh	J -3 A
				43 1 16	A 4
	<i>Y</i> .			s) 1 ch	W /-
1 Rine '71	4			h1 1 1 h	SC8785-4 A
- 4	> L	×		11 10 04	C68819-3 A
	とフ			6 1 B	V 11- 1
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5 to	>		-	4 1 AIS	020C13A -3
7-4	·			304 1 3	050C13A
2				1 24A 1 2	1 - 100 C 13 A - 5
W6184365-6	7		C824A90	1 CH328A 1	1 . 7
	Y REC -		V040F9AQ	$\vdash$	50 19 BFB -10 -10
COMMENTS	YIN ANALYST PH	\$	METHOD 5	DATAFILE DF ALS#	SAMPLE NAME
		FHOD Criteria	PREP.METHOD		

KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION: 11/22/13 7:51

GCMS-C INSTRUMENT RUNLOG

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	COMMENTS				not ned es	•		her stal	hea Coat	800 al - Hone	304174021 = 10 1004	1 Can 804/2412	YN ROM CONOM	KOWE-JUNGS (PO)	7	Hongeryome runge	1 Non Soncton	121 8002/2412	run farul +40m	FUN BOOK STORY	mono mas und	•	1 12	11 MAN 240, 19:32					OLM 04.2	OLC 03.2	EPA 624	EPA 524	_
	HH	٢	_				L																		ļ.		$\int$	ds:		SIM	SIM	rge)	)
	ANALYST	્ર્	_																								_	Circle Methods:	SW846 8260	SW846 8260 SIM	SW846 8260 SIM	(heated purge)	
		\$ \$ \$				_																						Circle	SW84	SW84	SW84	(Je	
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Cri	E SVS										×				_														V9134	V4135			
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	METHC	VOABFEAQ	C8240 A 90	-						_		-												_			7	STANDAR	IS MIX	SS MIX			
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		-3	7	1,0				6	-5																								n 1-11/
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	SAMPLE NAM	50 ng BFB	NST PO SOCAAA	3		A	Ą	<u>ي</u>	政大	569044-10D2	7-5 D	١٥	-1 BL	708-	-904	701-460895	-4DT	-3	h-	(	1				<i>"</i>	9)	MODH BINDE	ARD		وَ	XIW:	XIW S	DA-002
	93	20	NSTP	LCSF	<b>DC3D</b>	VOLKA	VBLKB	VBLAC	MOOHBLA	5690	70 3-64375	. —			⇒	3000						7		>	7. 18	Rive	Medi	STANDARD	BFB	CAL. STD.	LCS/MS MIX	EXTRAS MIX	Š

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 11/23/13 750

00000			QAMS533		1/06/2009	VOA-002 - Revision 1 - 11/06/2009
EPA 524	(heated purge)				$V_{q(p,j)}$	EXTRAS MIX
EPA 624	SW846 8260 SIM			$\neg$	8519V	LCS/MS MIX
OLC 03.2	SW846 8260 SIM	V9125	SS MIX		NGIHU VGIU3	CAL. STD.
OLM 04.2	SW846 8260	V9134	IS MIX		04160	
	Circle Methods:	CODE	STANDARD	<u>~</u>	CODE	(RD
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80041-40MC	<b>&gt;</b>	<b>×</b>	>	7	1 05	\$69044-10C
hery LPaz				و	1 1 66	MOOH BLK5
hevy 7 PQ2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			<b>∨</b>	1 8 H	V BLKC -a
	<i>N</i>			3	1 47 1	V81K &
	N			3	1 46 1	VBLKA
	<b>X</b>				1-15h 1-1	LCSA W6134993-1
	<u> </u>		5826A9	)	1   44442	I (\
	Y 8EC -		VOABFBAG	7	1 707 87	50 ng ara -3
COMMENTS	Y/N ANALYST PH	1311 KAS DoD MCP	METHOD 5030 5035	ALS#	DATAFILE DF	SAMPLE NAME
		400 Criteria	PREP METHOD			

Katahdin Analytical Services 0000283

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111913 850		COMMENTS		19469U			Jalo Day				(a)-12 ino sacr					naas	SUDDIN.	Boon	4 con	naas	800		A029~					OLM 04.2	OLC 03.2	EPA 624	
SCTION:		Ŧ	1							1	L					1	[								1		ds:	$\wedge$	SIM	SIM	
DATE/TIME OF BFB INJECTION:		ANALYST																						•	$\rightarrow$		Circle Methods:	SW846 8260	SW846 8260 SIM	SW846 8260 SIM	
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KATAHDIN ANALYTICAL SERVICES		311 KAS														A .	Z							>			CODE	Vqlys	N913		
ALYTICA	PREP METHOD	5035																									O				
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GCMS-D INSTRUMENT RUNLOG		SAMPLENAME	50 not BR-B	VSTO/RIVISE	VSTD200	188	50	20	5	/ )	527	<u>U</u> 22D	くるして	VB2KB	VASONC	MOH BIK	SC88416-10	10-6-1	108-	10h-	105-	- Jims	it roms	21MSe	RINSE		STANDARD	BFB	CAL. STD.	LCS/MS MIX	
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EPA 524	(heated purge)			SHIPS	EXTRAS MIX
EPA 624	SW846 8260 SIM		-	V4152	LCS/MS MIX
OLC 03.2	SW846 8260 SIM	るである	SS MIX	1950 V9149	CAL. STD.
OLM 04.2	SW846 8260	79145	IS MIX	5	BFB
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	(2)	<u></u>		37 1 13	A 5
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	77     7			11   12	13 A
	1 1 1	6, 1		0    hC	A-A-
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		$^{\prime\prime}$	1) Buch 38	1 1 2 1 1 1	
	REC 1	<i>A</i>	Voapfega	08263 1 -1	50 ng BFB -3
COMMENTS	N ANALYST PH	1311 KAS DOD GAPP YIN		DATAFILE   DF   ALS#	SAMPLENAME
		THOD Criteria	PREP METHOD		

/OA-012 - Revision 1 - 06/02/20/

DI Preservative = Deionized Water +Stirbar NaHSO4 Preservative = 20% NaSO4 Solution + stirbar

# KATAHDIN ANALYTICAL SERVICES Organics Vial Prep Log

MA DEP VPH Methods: SW8260 SW8015 ME DEP 4.2.17

		1787	. 198	Vial +	Somelo Moinht			Drecervative		
Date	Analyst	Number	Vial + Preservative (g)	Sample (g)	(g)	Pre	Preservative	Volume (mL)	Sample Name	Comments
1773	DR	76540	33,44			DI //MEOH	OH / NaHSO4	5 / 10		
		76541	33.40	2h.3h	12.0त	DI / MEOH	OH V NaHSO4	5 / 10	56888-1 A	
		76542	33.55			ы /∤меон	OH NaHSO4	5 / 10		
		76543	14.88	39.74	CE' 2)	DI / MEOH	OH / NaHSO4	5 / 10	SC888-27	
		76544	33,19	45.21	12.03	DI / MEOH	OH / NaHSO4	5 / 10	508888-4A	
		76545	32.55			DI / MEOH	OH / NaHSO4	5 / 10		
		76546	32.96	39.36	04·9	DI / MEOH	OH / NaHSO4	5 / 10	SC8888-3 A	
		76547	33.00			DI / MEOH	OH / NaHSO4	5 / 10		
		76548	33.12			DI / ME	MEOH // NaHSO4	5 / 10		
>	>	76549	33.19	39,17	865	) / ME	DI /MEOH / NAHSO4	5/ 10	S68886-5 A	
11-8-13	MCL	76550	32.50			DI //ME	MEOH ) NAHSO4	5 10		
		76551	33,18			DI ME	MEOH / NaHSO4	5 / 10		
		76552	32.51	39.03	6.53	DI / ME	MEOH / NaHSO4	5 / 10	8-440675	
		76553	33.28			DI / ME	MEOH / NaHSO4	5 / 10		
		76554	33.51			DI WE	MEOH / NaHSO4	5 / 10		
		76555	32.96	39.96	1.00 ×	DI / ME	MEOH / NaHSO4	5 / 10		
		76556	32.96	39.71	1/5629	DI Y ME	MEOH / NaHSO4	5 / 10	S69044-4A	
		76557	32,40	38.61	10:01	DI   ME	MEOH / NaHSO4	5 / 10	S69044-3 A	
		76558	33,30	34.46	्र वाज	DI / ME	MEOH / NaHSO4	5 / 10	S 69044-2 A	
>	>	76559	32.50	39.08	6.58	DI ÅME	√ MEOH // NaHSO4	5 / 10	S69044-1 A	
40 ml Viai I of #	# to 1 ic	82612.	082613-34VF/1001/3-3AVF	713-3AVF		/		)		

082613-34VF/100113-3AVF 40 mL Vial Lot #\_ MeOH Lot #:\_ NaSO4 Lot #:\_

GC-003 - Revision 1 - 11/25/2009

KATAHDIN ANALYTICAL SERVICES Organics Vial Prep Log

Methods: SW8260 SW8015 ME DEP 4.2.17 MA DEP VPH

5 DM 76560 32.93	Date	Analyst	Vial Number	Vial + Preservative (g)	Vial + Preservative + Sample (g)	Sample Weight (g)		Preservative	ative	Prese Volun	Preservative Volume (mL)	Sample Name	Comments
76561 32.73 37.30 6.57 DI / MEOH NAHS 76562 33.41	11-8-13	MUL	76560	32.93			/ IO	MEOH	NaHSO4	2	/ 10		
76562 33.41 DI / MEOH NaHS 76564 33.31 40.33 7.01 DI / MEOH NaHS 76565 33.31 88.69 5.83 DI / MEOH NAHS 76566 33.31 DI / MEOH / NAHS 76567 33.47 DI / MEOH / NAHS 76568 33.47 DI / MEOH / NAHS 76570 33.25 DI / MEOH / NAHS 76570 33.25 DI / MEOH / NAHS 76570 33.25 DI / MEOH / NAHS 76571 33.25 DI / MEOH / NAHS 76572 33.26 DI / MEOH / NAHS 76573 33.26 DI / MEOH / NAHS 76575 33.26 DI / MEOH / NAHS 76576 33.26 DI / MEOH / NAHS 76576 33.28 DI / MEOH / NAHS 76577 33.26 DI / MEOH / NAHS 76578 33.28 DI / MEOH / NAHS 76579 33.28 DI / MEOH / NAHS 76579 33.24 PI / NAHS 76579 33.24			76561	32.73	39.30	16,57	/ IQ	МЕОН	NaHSO4	5	10	6 -	
76563 33.31 40.32 7.01 DI MECH NAHE 76565 33.93 DI MECH NAHE 76566 33.31 DI MECH NAHE 76568 33.47 DI MECH NAHE 76568 33.47 DI MECH NAHE 76570 33.47 DI MECH NAHE 76571 33.21 DI MECH NAHE 76572 32.54 DI MECH NAHE 76573 33.48 DI MECH NAHE 76576 33.48 DI MECH NAHE 76576 33.48 DI MECH NAHE 76577 33.48 DI MECH NAHE 76578 33.48 DI MECH NAH 76577 33.48 DI MECH NAH 76578 33.48 DI MECH NAH 76578 33.48 DI MECH NAH 76579 33.48 DI MECH NAH 76579 33.48 DI MECH NAH 76579 33.48 DI MECH NAH 76579 33.48 DI MECH NAH			76562	33.41		7	/ IQ	МЕОН	NaHSO4	2	9		
76564 33.97 38.69 5.89 DI MEOH NaHS 76565 33.93 76566 33.47 76568 33.47 76569 33.47 76570 33.27 76570 33.27 76571 33.21 76572 32.56 76573 33.47 76576 33.48 76577 33.49 76578 33.48 76577 33.40 76578 33.48 76577 33.40 76578 33.48 76578 33.48 76579 33.17 76579 33.17 76579 33.17 76579 33.17 76579 33.17 76579 33.17			76563	33.31	$\omega$	10.5	_	MEOH	NaHSO4	જ	10	864044-7 A	
76566 33.31 DI / MEOH / NaHS 76566 33.31 DI / MEOH / NaHS 76568 33.45 DI / MEOH / NaHS 76569 33.47 DI / MEOH / NaHS 76570 33.25 DI / MEOH / NaHS 76571 33.21 DI / MEOH / NaHS 76572 32.56 DI / MEOH / NaHS 76573 33.66 DI / MEOH / NaHS 76575 33.60 DI / MEOH / NaHS 76576 33.60 DI / MEOH / NaHS 76576 33.60 DI / MEOH / NaHS 76577 33.60 DI / MEOH / NaHS 76578 33.28 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS			76564	32.87	اوب	15.82V	/ IO	МЕОН	NaHSO4	2	5	569044-6A	
76566         33.31         DI / MEOH / NaHS           76567         33.47         DI / MEOH / NaHS           76569         33.47         DI / MEOH / NaHS           76569         33.47         DI / MEOH / NaHS           76570         33.25         DI / MEOH / NaHS           76572         32.56         DI / MEOH / NaHS           76573         33.48         DI / MEOH / NaHS           76574         33.46         DI / MEOH / NaHS           76575         33.49         DI / MEOH / NaHS           76576         33.49         DI / MEOH / NaHS           76577         33.40         DI / MEOH / NaHS           76578         33.28         DI / MEOH / NaHS           76579         33.17         DI / MEOH / NaHS           100713-3AVF         DI / MEOH / NaHS			76565	32.93			$\overline{}$	MEOH	/ NaHSO4	ည	10		
76567       33.47       DI / MEOH / NaHS         76568       33.47       DI / MEOH / NaHS         76569       33.47       DI / MEOH / NaHS         76570       33.35       DI / MEOH / NaHS         76571       33.36       DI / MEOH / NaHS         76572       33.66       DI / MEOH / NaHS         76573       33.66       DI / MEOH / NaHS         76574       33.66       DI / MEOH / NaHS         76575       33.60       DI / MEOH / NaHS         76576       33.47       DI / MEOH / NaHS         76577       33.46       DI / MEOH / NaHS         76578       33.28       DI / MEOH / NaHS         100713-34VF       DI / MEOH / NaHS			76566	33,31			/	МЕОН	/ NaHSO4	5	10		
76568 33.45 DI / MEOH / NaHS 76569 33.47 DI / MEOH / NaHS 76570 33.25 DI / MEOH / NaHS 76572 32.54 DI / MEOH / NaHS 76574 32.46 DI / MEOH / NaHS 76575 32.46 DI / MEOH / NaHS 76576 32.48 DI / MEOH / NaHS 76576 32.46 DI / MEOH / NaHS 76577 32.46 DI / MEOH / NaHS 76578 33.28 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17 DI / MEOH / NaHS 76579 33.17			76567	33.99			) IO	МЕОН	/ NaHSO4	5	10		
76569 33.47 DI / MEOH / NaHS 76570 33.25 DI / MEOH / NaHS 76572 32.56 DI / MEOH / NaHS 76573 32.66 DI / MEOH / NaHS 76574 32.66 DI / MEOH / NaHS 76575 32.67 DI / MEOH / NaHS 76576 33.60 DI / MEOH / NaHS 76578 33.60 DI / MEOH / NaHS 76578 33.46 DI / MEOH / NaHS 76578 33.47 DI / MEOH / NaHS 76579 33.47 DI / MEOH / NaHS 76579 33.47 DI / MEOH / NaHS			76568	33,45			) IO	МЕОН	/ NaHSO4	2	10		
76570 33,35 DI / MEOH / NaH5 76572 32,56 DI / MEOH / NaH5 76573 33,66 DI / MEOH / NaH5 76574 33,66 DI / MEOH / NaH5 76576 33,18 DI / MEOH / NaH5 76578 33,18 DI / MEOH / NaH5 76579 33,17 DI / MEOH / NaH5 106713-34VF			76569	33.47			/ IQ	MEOH	/ NaHSO4	2	9		
76571 33,31 DI / MECH / NaH8 76572 32,56 DI / MECH / NaH8 76574 33,66 DI / MECH / NaH8 76575 33,60 DI / MECH / NaH8 76576 33,60 DI / MECH / NaH8 76577 33,60 DI / MECH / NaH8 76578 33,17 DI / MECH / NaH8 76579 33,17 DI / MECH / NaH8 76579 33,17 DI / MECH / NaH8 76579 33,17 DI / MECH / NaH8 76579 33,17			76570	33,35			) IO	МЕОН	/ NaHSO4	2	5		
76572 32.56 DI MEOH / NaHS 76573 33.48 DI MEOH / NaHS 76575 33.60 DI MEOH / NaHS 76576 33.18 DI MEOH / NaHS 76578 33.28 DI MEOH / NaHS 76578 33.28 DI MEOH / NaHS 100713-34VF			76571	12.21			<u></u>	MEOH	/ NaHSO4	5	10		
76573 33.98 DI MEOH / NaHS 76574 33.66 DI MEOH / NaHS 76576 33.18 DI MEOH / NaHS 76576 33.28 DI MEOH / NaHS 76578 33.28 DI MEOH / NaHS 76579 33.17 DI MEOH / NaHS 100.713-34VF			76572	32.56			/ IQ	MEOH	/ NaHSO4	5	, 10		
76574 33.66 DI MEOH / NaHi 76576 33.18 DI MEOH / NaHi 76578 33.28 DI MEOH / NaHi 76579 33.28 DI MEOH / NaHi 106713-34VF			76573	33.98			Ю	MEOH		5	7		
76575 33.44 DI MEOH / NaH: 76576 33.48 DI MEOH / NaH: 76578 33.28 DI MEOH / NaH: 76579 33.17 DI MEOH / NaH: 100713-34VF			76574	32.66			ō	МЕОН		2	/ 10		
76576 33.18 DI MEOH / NaH 76578 33.28 DI MEOH / NaH 76579 33.17 DI MEOH / NaH 100913-34VF			76575	49.ee			ā	MEOH	/ NaHSO4	2	/ 10		
76577 33.60 DI МЕОН / NaH 76578 33.28 DI МЕОН / NaH 100913-34VF			76576	33:18			ā	МЕОН	_	2	/ 10		
1 76578 33.28 DI MEOH / NAH. 100713-34VF 5579 33.17 DI MEOH / NAH.			76577	32.60			百	МЕОН	/ NaHSO4	ហ	7 10		
106713-34VF	-		76578	33.28			ō	MEOH	~	2	1 10		
100713-3AVF DI431	>	>	76579	33.17			D	MEOH	/ NaHSO4	5	19		
lehIU.	40 mL V	ial Lot #		3-3AVF						>			
	MeOH L	ot #:						)	:		Preserva	tive = Deionized Water +	Stirbar

KATAHDIN ANALYTICAL SERVICES Organics Vial Prep Log

Methods: SW8260 SW8015 ME DEP 4.2.17 MA DEP VPH

33.09 6.45 DI / N 33.09 6.45 DI / N DI / N	Preservative Volume (mL)	Sample Name Comments
23.97  76582  76582  76583  76584  76583  76584  76584  76585  76584  76585  76586  76586  76589	01 / MEOH / NaHSO4 (5) / 10	
76582 32.64 33.09 6.45 DI IN 76583 32.64 33.09 6.45 DI IN 76585 33.35 DI IN 76585 33.35 DI IN 76586 32.64 DI IN 76589 32.64 DI IN 76590 36.59 DI IN 76590 36.59 DI IN 76590 36.59 DI IN 76590 36.59 DI IN 76590 36.59 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 36.90 DI IN 76590 37.00 DI IN 76590 37	DI / MEOH / NaHSO4 5 / 10	
76583 32.64 33.09 6.45 01.1M 76584 33.36 01.1M 76585 33.33 01.1M 76586 33.64 01.1M 76589 32.64 01.1M 76590 36.56 01.1M 76591 36.59 01.1M 76592 36.59 01.1M 76593 37.08 01.1M 76594 36.84 01.1M 76596 36.90 01.1M 76596 36.90 01.1M 76596 36.90 01.1M 76596 36.90 01.1M 76598 37.00	/ MEOH   NaHSO4   5 / 10	
76584 33.36 DIVIN 76585 33.33 DIVIN 76586 33.83 DIVIN 76580 33.64  76589 32.64  776590 36.56  776591 36.84  776595 36.90  776596 36.90  776596 36.90  776596 36.90  776596 36.90  776596 36.90	DI / MEOH / NaHSO4 5 / 10	>67044-10A
T6585 33,33 76586 33,83- 76587 33.70 76589 32.64 T6589 32.57 D1/10 T6591 36.84 T6594 36.84 T6596 36.90 T6596 36.90 T6598 37.08	OI / MEOH / NaHSO4 5 / 10	
76586 33,83- 76587 33.70 76588 32.64  76589 32.57  DIVIDIAN 76590 36.56  76591 36.57  76592 36.59  76594 36.84  76595 36.90  76596 36.90  76598 37.03- DIVIDIAN 76598 37.03- DIVIDIAN 76598 37.03-	OI / MEOH NaHSO4 5 / 10	
76587 32.70 DI III 76588 32.64  76589 32.57  DM 76590 36.56  76591 36.89  76592 36.84  76596 36.90  76596 36.90  76596 36.90  76596 36.90  76597 DI III	DI / MEOH / NaHSO4 5 / 10	
76588 32.64  76589 32.67  DM 76590 36.56  76591 36.89  76592 36.84  76596 36.90  DI 76596 36.46  76598 37.03	DI / MEOH / NaHSO4 5 / 10	
T6589 32.57  T6590 36.56  T6591 36.89  T6592 36.59  T6594 36.84  T6596 36.90  T6596 36.90  T6597 36.66	DI / MEOH / NaHSO4 5 / 10	
DM 76590 36,56 76591 36,89 76592 36,59 76593 37,08 76594 36,84 76596 36,90 76596 36,90 76597 36,90	DI / MEOH / NAHSO4 5 / 10	
76591 36,89 76592 36,59 76593 37,08 76594 36,84 76596 36,94 76596 36,90 76597 36,40 10	DI / MEOH X NAHSO4 5 / 10	
36.59 37.08 36.84 36.84 56.40 56.40 57.03	DI / MEOH / NaHSO4 5 / 10	
37.08 36.84 36.84 56.40 36.40 937.03	DI / MEOH / NaHSO4 5 / 10	
36.84 36.90 36.40 36.40 37.03	DI / MEOH / NaHSO4 5 / 10	
36.36 36.40 36.40 37.03	DI / MEOH / NaHSO4 5 / 10	
36.90 36.61 37.03	DI / MEOH / NaHSO4 5 / 10	
37.03	DI / MEOH / NaHSO4 5 / 10	
37.03	DI / MEOH / NaHSO4 5 / 10	
7.00	DI / MEOH / NaHSO4 5 / 10	
7 76500 37/2/	DI /MEOH / NaHSO4 5 / 10	
10001		•
40 mL Viai Lot #:	DI Preservati NaHSO4 Preservative ≕	DI Preservative = Deionized Water +Stirbar NaHSO4 Preservative = 20% NaSO4 Solution + Stirbar

# TOTAL PETROLEUM HYDROCARBON

# **QC Summary Section**





# Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: SL

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. II	ОТР	#
RS-SB1-111413	SG9044-1DL	A	63.1	
RS-SB1-111413	SG9044-1RE	A	103.	*
RS-SB2-111513	SG9044-2RE	A	39.5	
RS-SB3-111513	SG9044-3REDL	A	59.3	
RS-SB4-111813	SG9044-4RE	A	59.9	
RS-SB5-111813	SG9044-5REDL	A	0.00	D
RS-SB6-111513	SG9044-6REDL	A	58.8	
RS-SB7-111413	SG9044-7	A	89.0	
RS-SB7-111413	SG9044-7RE	A	66.5	
RS-SB8-111413	SG9044-8	A	88.6	
RS-SB8-111413	SG9044-8RE	A	47.1	
FD-SO-111813	SG9044-9REDL	A	0.00	D
Method Blank Sample	WG135097-1	A	92.4	
Laboratory Control S	WG135097-2	A	74.5	
Laboratory Control S	WG135097-3	A	81.4	
Method Blank Sample	WG135352-1	A	60.1	
Laboratory Control S	WG135352-2	A	60.4	
Laboratory Control S	WG135352-3	A	67.3	

**QC** Limits

OTP O-TERPHENYL

28-101

# = Column to be used to flag recovery limits.

\* = Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





# Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: AQ

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. ID	OTP #
IDW-GW-112113	SG9180-11	A	66.7
Method Blank Sample	WG134891-1	A	84.5
Laboratory Control S	WG134891-2	A	77.5
Laboratory Control S	WG134891-3	A	89.0

**QC** Limits

OTP O-TERPHENYL

51-103

# = Column to be used to flag recovery limits.

\* = Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





# **Method Blank Summary**

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-04

Lab Sample ID: WG134891-1

Lab File ID : AGK20370.DDate Extracted : 22-NOV-13Instrument ID : GC10Date Analyzed : 26-NOV-13

Matrix : AQ Time Analyzed : 16:15

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG134891-2	AGK20371	11/26/13	16:50
Laboratory Control S	WG134891-3	AGK20372	11/26/13	17:25
IDW-GW-112113	SG9180-11	AGK20373	11/26/13	18:00





# **Method Blank Summary**

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-04

Lab Sample ID: WG135097-1

Lab File ID : AGK20367A.Date Extracted : 25-NOV-13Instrument ID : GC10Date Analyzed : 26-NOV-13

Matrix : SL Time Analyzed : 14:30

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG135097-2	AGK20368	11/26/13	15:05
Laboratory Control S	WG135097-3	AGK20369	11/26/13	15:40
RS-SB7-111413	SG9044-7	AGK20375	11/26/13	19:10
RS-SB8-111413	SG9044-8	AGK20376	11/26/13	19:45
RS-SB1-111413	SG9044-1DL	AGL20023.	12/03/13	09:40





# **Method Blank Summary**

Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Lab Sample ID : WG135352-1

Lab File ID : AGL20007.D

Date Extracted : 29-NOV-13

Instrument ID : GC10

Date Analyzed : 02-DEC-13

Matrix: SL Time Analyzed: 14:09

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG135352-2	AGL20008.	12/02/13	14:44
Laboratory Control S	WG135352-3	AGL20009.	12/02/13	15:19
RS-SB1-111413	SG9044-1RE	AGL20010.	12/02/13	15:54
RS-SB2-111513	SG9044-2RE	AGL20011.	12/02/13	16:30
RS-SB4-111813	SG9044-4RE	AGL20012.	12/02/13	17:05
RS-SB7-111413	SG9044-7RE	AGL20013.	12/02/13	17:40
RS-SB8-111413	SG9044-8RE	AGL20014.	12/02/13	18:15
RS-SB3-111513	SG9044-3REDL	AGL20015.	12/02/13	18:50
RS-SB5-111813	SG9044-5REDL	AGL20019.	12/02/13	21:10
RS-SB6-111513	SG9044-6REDL	AGL20020.	12/02/13	21:45
FD-SO-111813	SG9044-9REDL	AGL20021.	12/03/13	08:30





# Form 8 GC Analytical Sequence

Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Column ID : A

**Instrument ID**: GC10

		Date	Time		
Client Sample ID	Lab Sample ID	Analyzed	Analyzed	OTP	ОТР
Initial Calibration	WG126180-3	06/21/13	11:59	11.75	
Initial Calibration	WG126180-5	06/21/13	12:34	11.76	
Initial Calibration	WG126180-4	06/21/13	13:09	11.76	
Initial Calibration	WG126180-2	06/21/13	13:44	11.75	
Initial Calibration	WG126180-1	06/21/13	14:19	11.75	
Independent Source	WG126180-6	06/21/13	14:55		
Continuing Calibrati	WG135478-1	11/26/13	11:32	11.50	
Method Blank Sample	WG135097-1	11/26/13	14:30	11.49	
Laboratory Control S	WG135097-2	11/26/13	15:05	11.50	
Laboratory Control S	WG135097-3	11/26/13	15:40	11.50	
Method Blank Sample	WG134891-1	11/26/13	16:15	11.50	
Laboratory Control S	WG134891-2	11/26/13	16:50	11.50	
Laboratory Control S	WG134891-3	11/26/13	17:25	11.50	
IDW-GW-112113	SG9180-11	11/26/13	18:00	11.50	
RS-SB7-111413	SG9044-7	11/26/13	19:10	11.49	
RS-SB8-111413	SG9044-8	11/26/13	19:45	11.49	
Continuing Calibrati	WG135478-2	11/26/13	20:54	11.50	
Continuing Calibrati	WG135478-3	12/02/13	13:29	11.46	
Method Blank Sample	WG135352-1	12/02/13	14:09	11.46	
Laboratory Control S	WG135352-2	12/02/13	14:44	11.47	
Laboratory Control S	WG135352-3	12/02/13	15:19	11.47	
RS-SB1-111413	SG9044-1RE	12/02/13	15:54	11.47	
RS-SB2-111513	SG9044-2RE	12/02/13	16:30	11.46	
RS-SB4-111813	SG9044-4RE	12/02/13	17:05	11.47	
RS-SB7-111413	SG9044-7RE	12/02/13	17:40	11.46	
RS-SB8-111413	SG9044-8RE	12/02/13	18:15	11.46	
RS-SB3-111513	SG9044-3REDL	12/02/13	18:50	11.46	
Continuing Calibrati	WG135478-4	12/02/13	20:35	11.46	
RS-SB5-111813	SG9044-5REDL	12/02/13	21:10		
RS-SB6-111513	SG9044-6REDL	12/02/13	21:45	11.46	
FD-SO-111813	SG9044-9REDL	12/03/13	08:30		
RS-SB1-111413	SG9044-1DL	12/03/13	09:40	11.46	
Continuing Calibrati	WG135478-5	12/03/13	11:26	11.47	
<del>-</del>	1	1	1		

# **Sample Data Section**

#### KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

- U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.
  - Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
- Compound recovery outside of quality control limits.
- D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
- E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
- J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

- J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.
- B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
- C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).
- L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.
- M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.
- N Presumptive evidence of a compound based on a mass spectral library search.
- A Indicates that a tentatively identified compound is a suspected aldol-condensation product.
- P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

# Katahdin Analytical Services, Inc.

# Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
МЗ	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.





# **Report of Analytical Results**

Client: AECOM Environment

**Lab ID:** SG9044-1DL **Client ID:** RS-SB1-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20023.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 25 NOV 13

Extract Date: 25-NOV-13 Extracted By: JMS

Extraction Method: SW846 3550

Lab Prep Batch: WG135097

Analysis Date: 03-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 86.

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units 1	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		100	mg/Kgdrywt	2	5	9.9	5.1	7.5
o-Terphenyl		63.1	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20023.D

Report Date: 03-Dec-2013 12:35

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20023.D

Lab Smp Id: SG9044-1DLClient Smp ID: RS-SB1-111413

Inj Date : 03-DEC-2013 09:40

Operator : AC Smp Info : SG9044-1DL Misc Info : WG135478,WG135097,WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 2.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03550	Moisture (%)
Cpnd Variable		Local Compound Variable

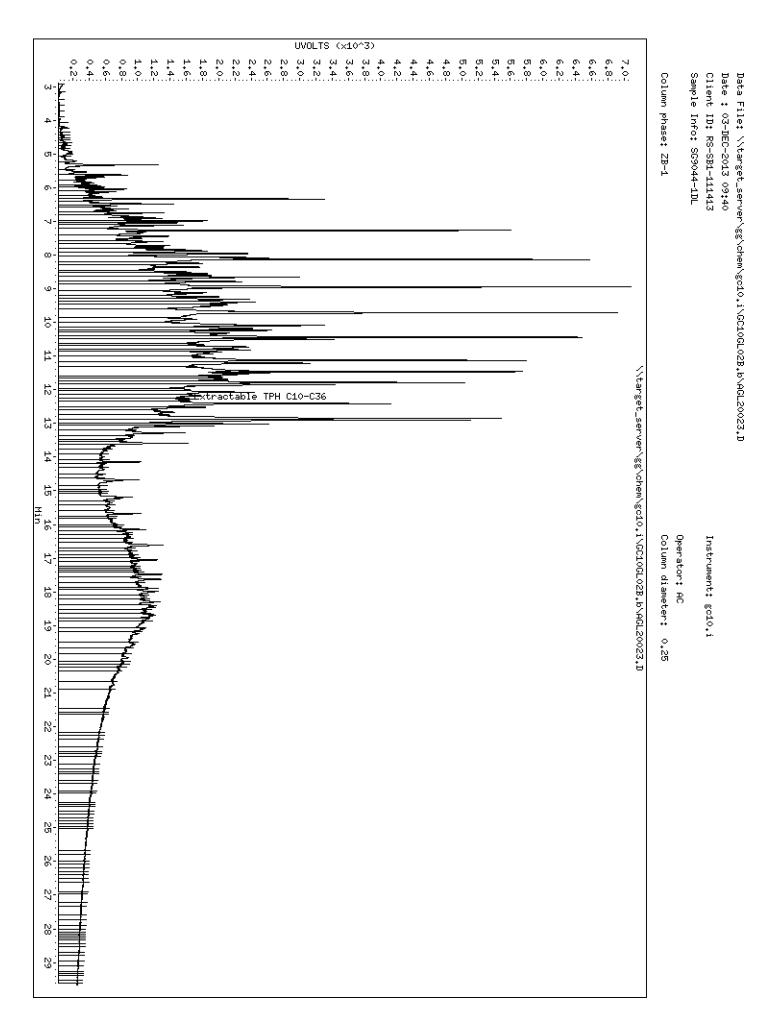
CONCENTRATIONS

			ON-COLUMN	FINAL	
Compounds	RT EXP RT	DLT RT RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
=======================================	==== ======	=======================================	======	======	=======
\$ 8 O-Terphenyl	11.464 11.536	-0.072 254004	6.30712	0.415(M)	M2
S 10 Extractable TPH C10-C36	4.157-20.310	53315803	1585.51	104(M)	IVIZ

QC Flag Legend

M - Compound response manually integrated.

12:59 pm, Dec 03, 2013







# **Report of Analytical Results**

Client: AECOM Environment

**Lab ID:** SG9044-1RE **Client ID:** RS-SB1-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20010.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 20 NOV 13

Extract Date: 29-NOV-13 Extracted By: JMS

Extraction Method: SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 86.

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units 1	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		48	mg/Kgdrywt	1	5	5.8	3.0	4.4
o-Terphenyl	*	103.	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20010.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20010.D

Lab Smp Id: SG9044-1RE Client Smp ID: RS-SB1-111413

Inj Date : 02-DEC-2013 15:54

Operator : AC Smp Info : SG9044-1RE Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03010	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

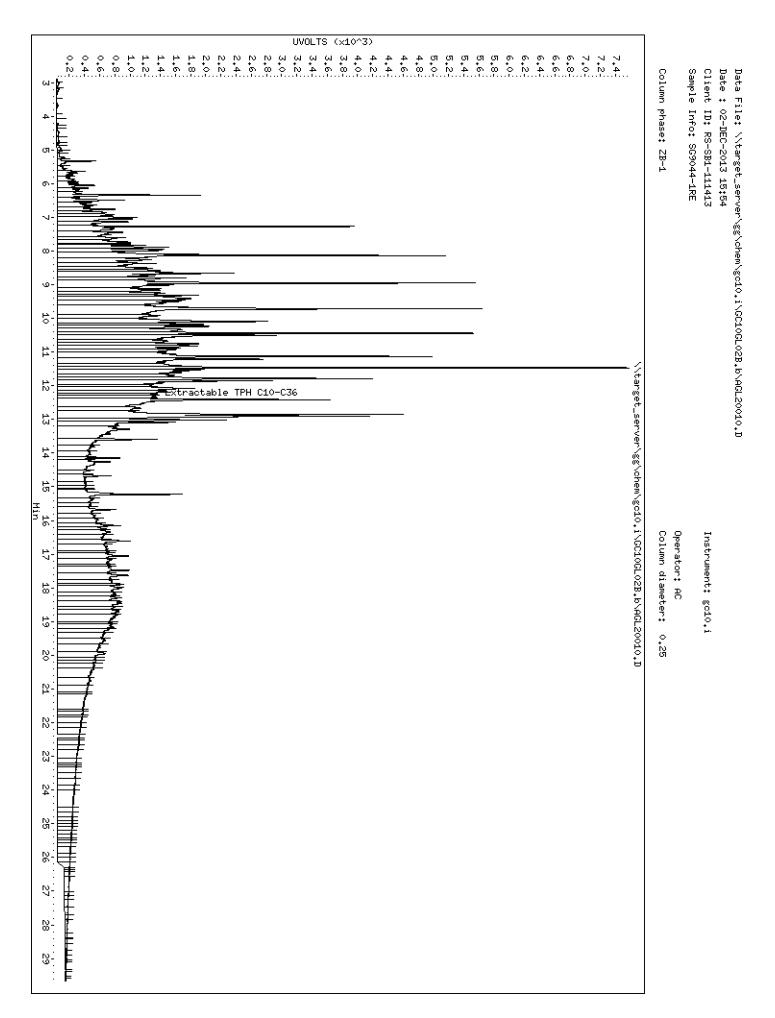
CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	========
\$ 8 O-Terphenyl	11.467	11.536	-0.069	805865	20.7089	0.803(RM)	
S 10 Extractable TPH C10-C36	4.157-	-20.310		41672695	1237.04	48.0(M)	M2

#### QC Flag Legend

R - Spike/Surrogate failed recovery limits. M - Compound response manually integrated.

12:59 pm, Dec 03, 2013







# **Report of Analytical Results**

**Client:** AECOM Environment

**Lab ID:** SG9044-2RE **Client ID:** RS-SB2-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20011.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

Extract Date: 29-NOV-13

Extracted By: JMS
Extraction Method: SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 84.

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		5.5	mg/Kgdrywt	1	5	5.4	2.8	4.1
o-Terphenyl		39.5	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20011.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20011.D

Lab Smp Id: SG9044-2RE Client Smp ID: RS-SB2-111513

Inj Date : 02-DEC-2013 16:30

Operator : AC Smp Info : SG9044-2RE Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03310	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

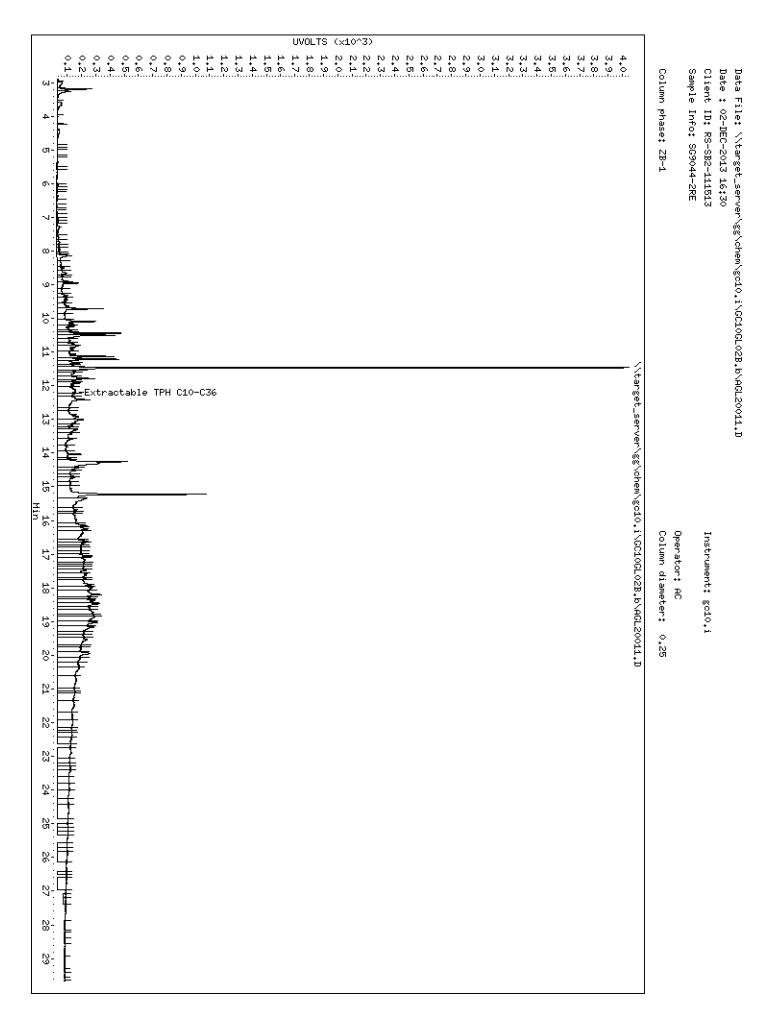
CONCENTRATIONS

		ON-COLUMN	FINAL	
Compounds	RT EXP RT DLT RT	RESPONSE (ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	==== =======	=======	======	========
\$ 8 O-Terphenyl	11.464 11.536 -0.072	315415 7.90975	0.285(M)	N/12
S 10 Extractable TPH C10-C36	4.157-20.310	5463137 153.331	5.53(M)	M2

QC Flag Legend

M - Compound response manually integrated.

12:59 pm, Dec 03, 2013







Client: AECOM Environment Lab ID: SG9044-3REDL Client ID: RS-SB3-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20015.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

**Extracted By: JMS** 

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units I	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		120	mg/Kgdrywt	5	5	27.	14.	20.
o-Terphenyl		59.3	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20015.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20015.D

Lab Smp Id: SG9044-3REDL Client Smp ID: RS-SB3-111513

Inj Date : 02-DEC-2013 18:50

Operator : AC Smp Info : SG9044-3REDL Misc Info : WG135478,WG135352,WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 5.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03100	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

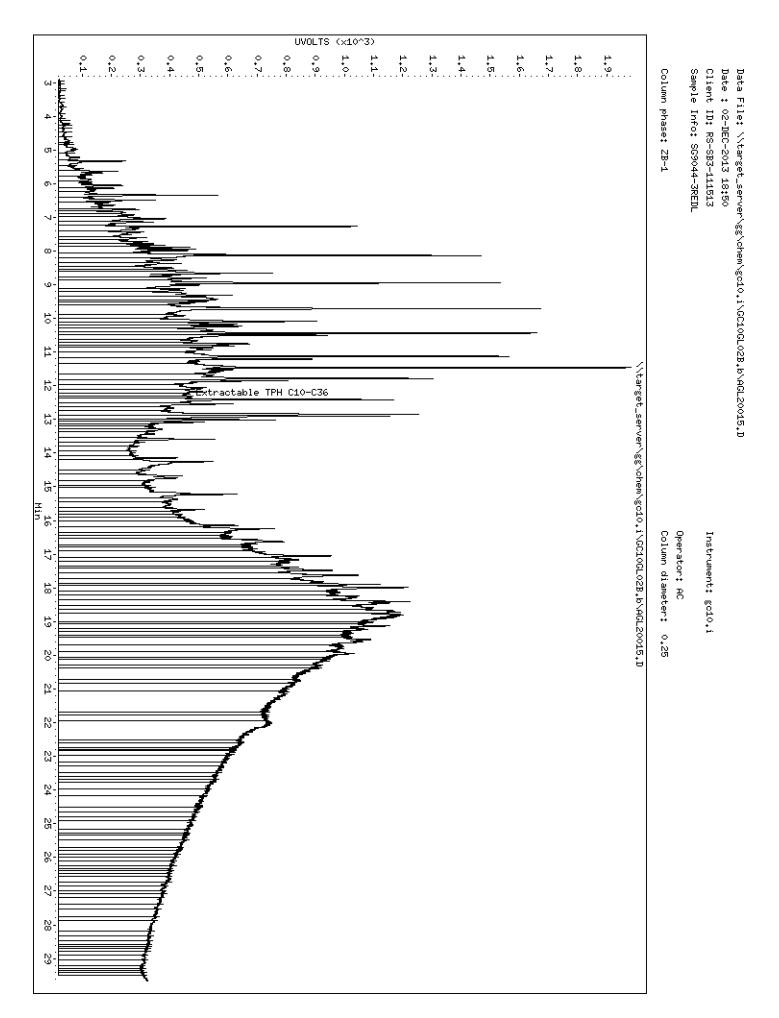
CONCENTRATIONS

Compounds	RT EXP	RT DLT RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (mg/Kgdrywt)	REVIEW CODE
=======================================	==== =====	=== ======	======	======	======	========
\$ 8 O-Terphenyl	11.464 11.5	36 -0.072	103084	2.36859	0.425(M)	N/12
S 10 Extractable TPH C10-C36	4.157-20.31	.0	23666002	698.123	125(M)	M2

QC Flag Legend

M - Compound response manually integrated.

1:00 pm, Dec 03, 2013







**Client:** AECOM Environment

**Lab ID:** SG9044-4RE **Client ID:** RS-SB4-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20012.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

Extract Date: 29-NOV-13 Extracted By: JMS

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	J	3.8	mg/Kgdrywt	1	5	5.8	3.0	4.4
o-Terphenyl		59.9	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20012.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\\GC10GL02B.b\\AGL20012.D

Lab Smp Id: SG9044-4RE Client Smp ID: RS-SB4-111813

Inj Date : 02-DEC-2013 17:05

Operator : AC Smp Info : SG9044-4RE Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment :
Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

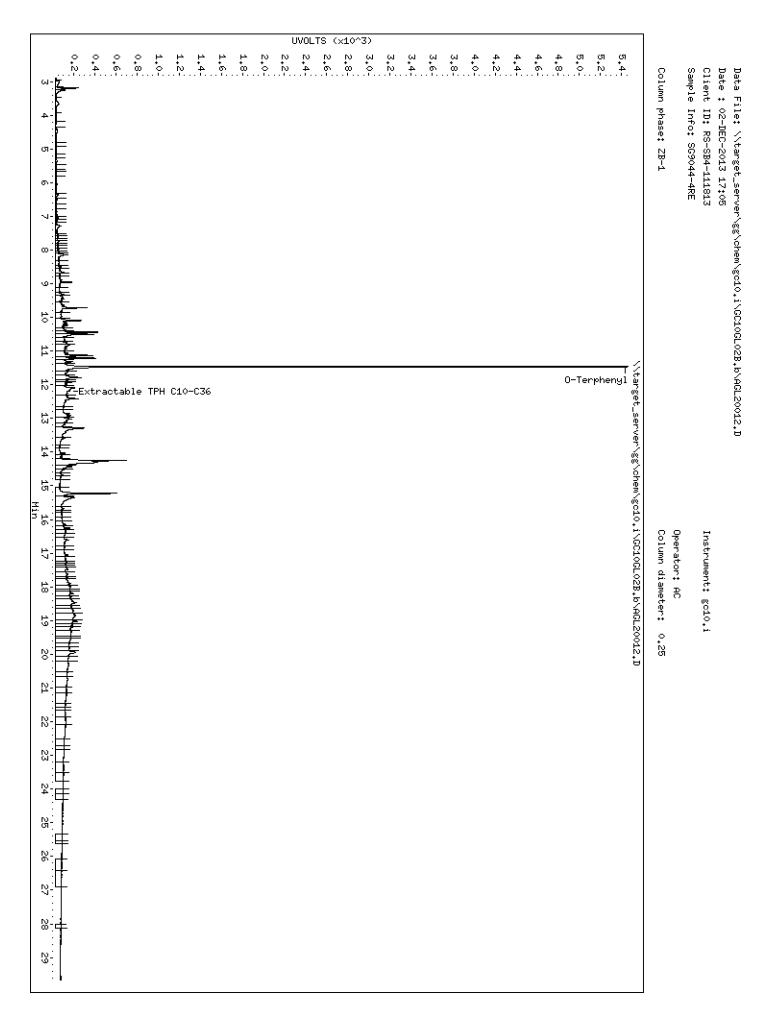
Name Value Description	11
M 14.167 Moisture (	me (L) Sample (Kg)

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	========
\$ 8 O-Terphenyl	11.465	11.536	-0.071	471805	11.9910	0.464	
S 10 Extractable TPH C10-C36	4.157-	-20.310		3616486	98.0629	3.80(a)	

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).







Client: AECOM Environment Lab ID: SG9044-5REDL Client ID: RS-SB5-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20019.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

**Extracted By:** JMS

Extraction Method: SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		950	mg/Kgdrywt	10	5	54.	28.	41.
o-Terphenyl	D	0.00	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20019.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20019.D

Lab Smp Id: SG9044-5REDL Client Smp ID: RS-SB5-111813

Inj Date : 02-DEC-2013 21:10

Operator : AC Smp Info : SG9044-5REDL Misc Info : WG135478,WG135352,WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 10.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M Cpnd Variable	0.00100 0.03240	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
cpiid variable		Local Compound Variable

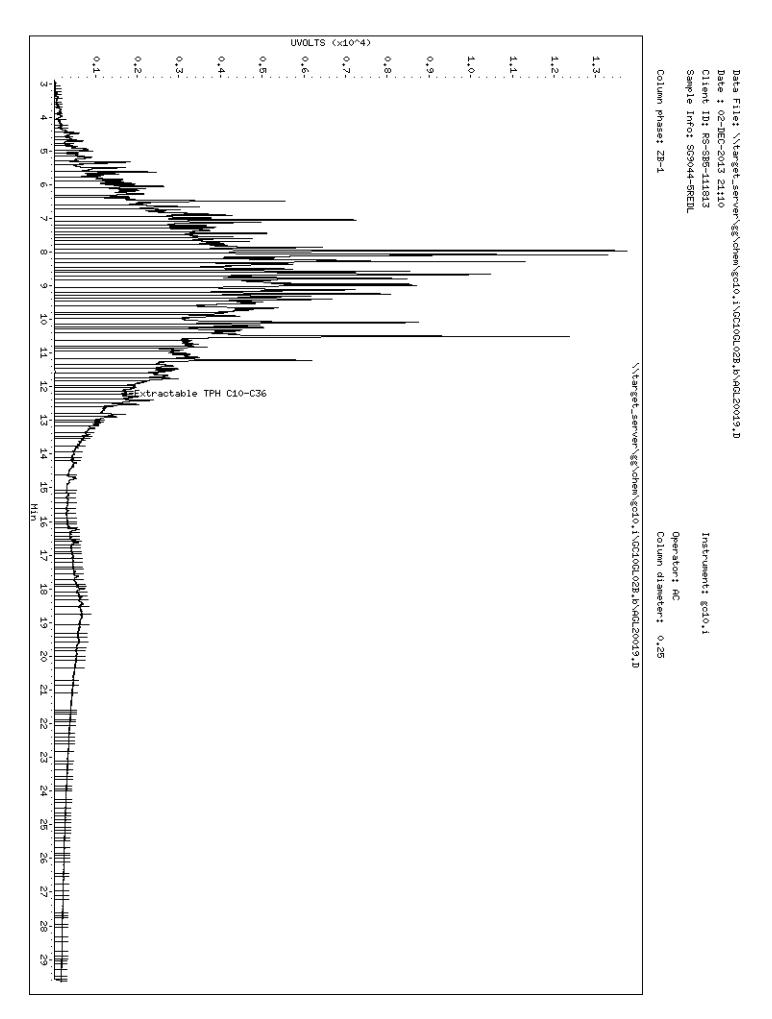
CONCENTRATIONS

			ON-COLUMN	FINAL	
Compounds	RT EXP RT	DLT RT RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	==== ======	=======================================	======	======	========
S 10 Extractable TPH C10-C36	4.157-20.310	88476882	2637.84	946(M)	M11

QC Flag Legend

M - Compound response manually integrated.

1:00 pm, Dec 03, 2013







Client: AECOM Environment Lab ID: SG9044-6REDL Client ID: RS-SB6-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20020.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

Extracted By: JMS

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		86	mg/Kgdryw	1 5	5	28.	14.	21.
o-Terphenyl		58.8	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20020.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20020.D

Lab Smp Id: SG9044-6REDL Client Smp ID: RS-SB6-111513

Inj Date : 02-DEC-2013 21:45

Operator : AC
Smp Info : SG9044-6REDL
Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 5.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF		Dilution Factor
Vt		Final Volume (L)
Ws	0.03010	
M	10.435	Moisture (%)
Cpnd Variable		Local Compound Variable

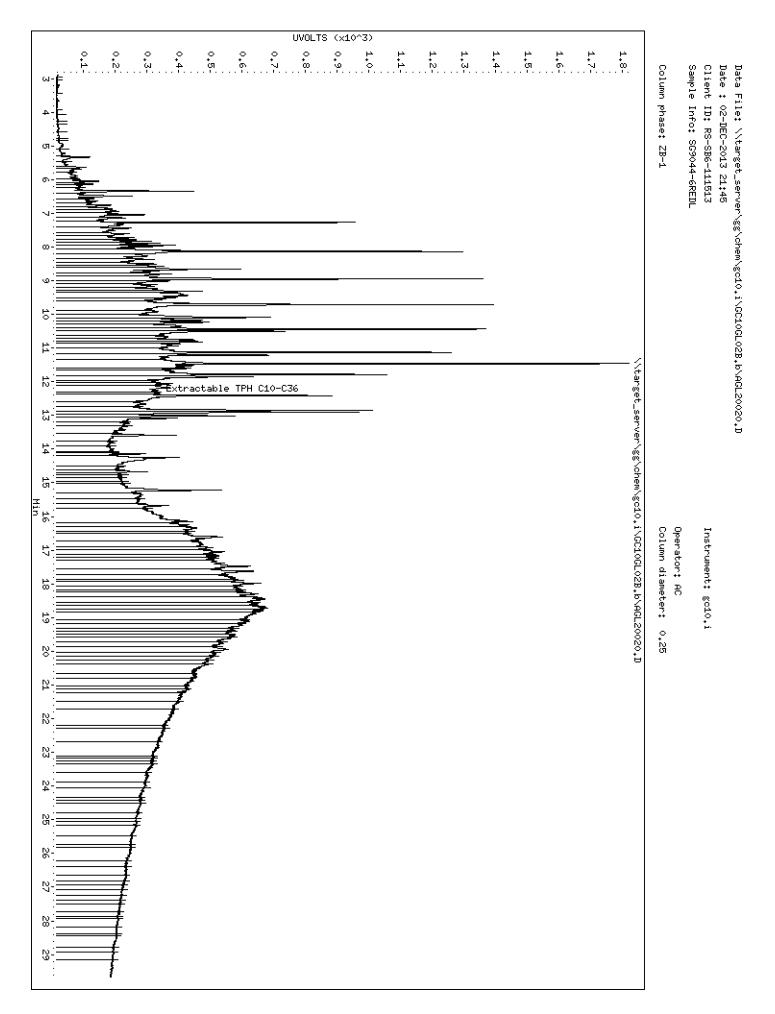
CONCENTRATIONS

		ON-COLUMN	FINAL
Compounds	RT EXP RT DLT RT	RESPONSE (ug/ml)	(mg/Kgdrywt) REVIEW CODE
=======================================	==== =======	= =======	=======================================
\$ 8 O-Terphenyl	11.462 11.536 -0.074	102492 2.35314	0.436(M) <b>M2</b>
S 10 Extractable TPH C10-C36	4.157-20.310	15830244 463.607	86.0(M)

QC Flag Legend

M - Compound response manually integrated.

1:01 pm, Dec 03, 2013







**Client:** AECOM Environment

Lab ID: SG9044-7

**Client ID:** RS-SB7-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGK20375.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 25 NOV 13

Extract Date: 25-NOV-13

**Extracted By:** JMS **Extraction Method:** SW846 3550

Lab Prep Batch: WG135097

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 87.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	В	6.1	mg/Kgdrywt	1	5	5.5	2.9	4.2
o-Terphenyl		89.0	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20375.D

Report Date: 03-Dec-2013 12:37

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20375.D

Lab Smp Id: SG9044-7 Client Smp ID: RS-SB7-111413

Inj Date : 26-NOV-2013 19:10

Operator : AC Smp Info : SG9044-7 Misc Info : WG135478, WG135097, WG125981-3 Inst ID: gc10.i

Comment

: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m Method

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

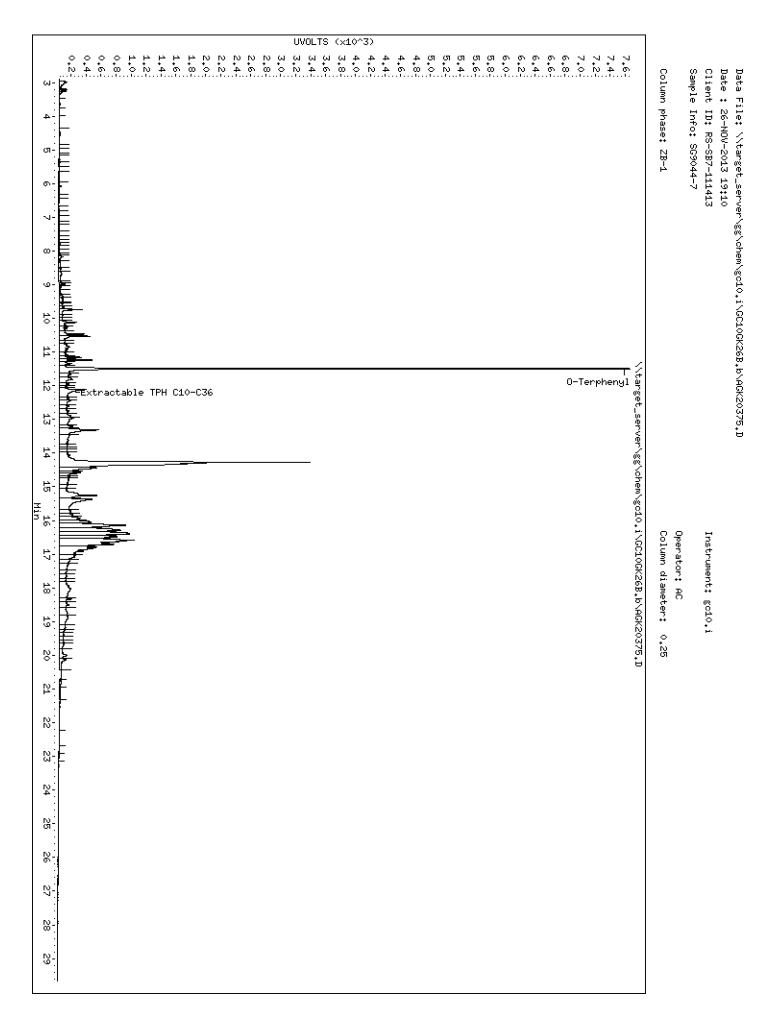
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03100	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

						CONCENTRA	ATIONS		
						ON-COLUMN	FINAL		
С	ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE	Z
=	=======	====	======	======	======	======	======	========	
\$	8 O-Terphenyl	11.494	11.536	-0.042	694865	17.8122	0.658		
S	10 Extractable TPH C10-C36	4.157	-20.310		5892227	166.173	6.14		







Client: AECOM Environment

**Lab ID:** SG9044-7RE **Client ID:** RS-SB7-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20013.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

Extract Date: 29-NOV-13 Extracted By: JMS

Extraction Method: SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 87.

Compound	Qualifier	Result	Units D	ilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	J	3.0	mg/Kgdrywt	1	5	5.0	2.6	3.8
o-Terphenyl		66.5	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20013.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20013.D

Lab Smp Id: SG9044-7RE Client Smp ID: RS-SB7-111413

Inj Date : 02-DEC-2013 17:40

Operator : AC Smp Info : SG9044-7RE Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

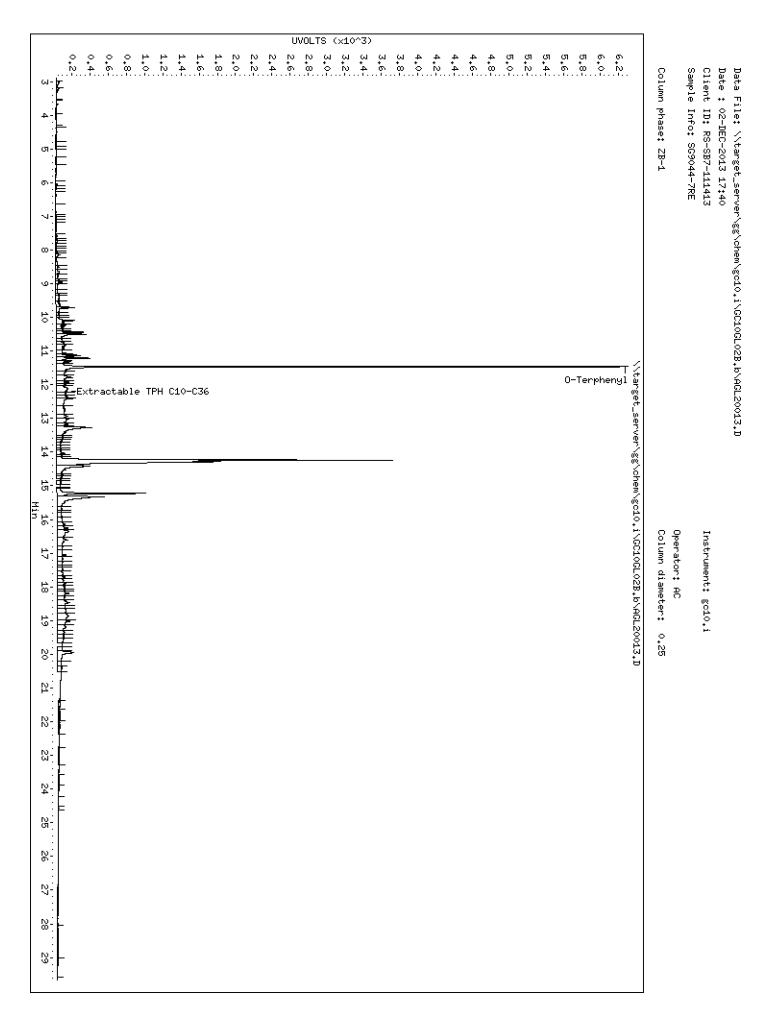
Name	Value	Description
DF Vt Ws M	0.00100 0.03440	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	==== =			======	======	======	========
\$ 8 O-Terphenyl	11.464	11.536	-0.072	522407	13.3116	0.443	
S 10 Extractable TPH C10-C36	4.157-2	0.310		3323171	89.2843	2.97(a)	

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).







**Client:** AECOM Environment

Lab ID: SG9044-8

**Client ID:** RS-SB8-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGK20376.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13

Extract Date: 25-NOV-13 Extracted By: JMS

Extraction Method: SW846 3550

Lab Prep Batch: WG135097

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 78.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	В	7.9	mg/Kgdrywt	1	5	6.4	3.3	4.8
o-Terphenyl		88.6	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20376.D

Report Date: 03-Dec-2013 12:37

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20376.D

Lab Smp Id: SG9044-8 Client Smp ID: RS-SB8-111413

Inj Date : 26-NOV-2013 19:45

Operator : AC Smp Info : SG9044-8 Misc Info : WG135478, WG135097, WG125981-3 Inst ID: gc10.i

Comment

: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m Method

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

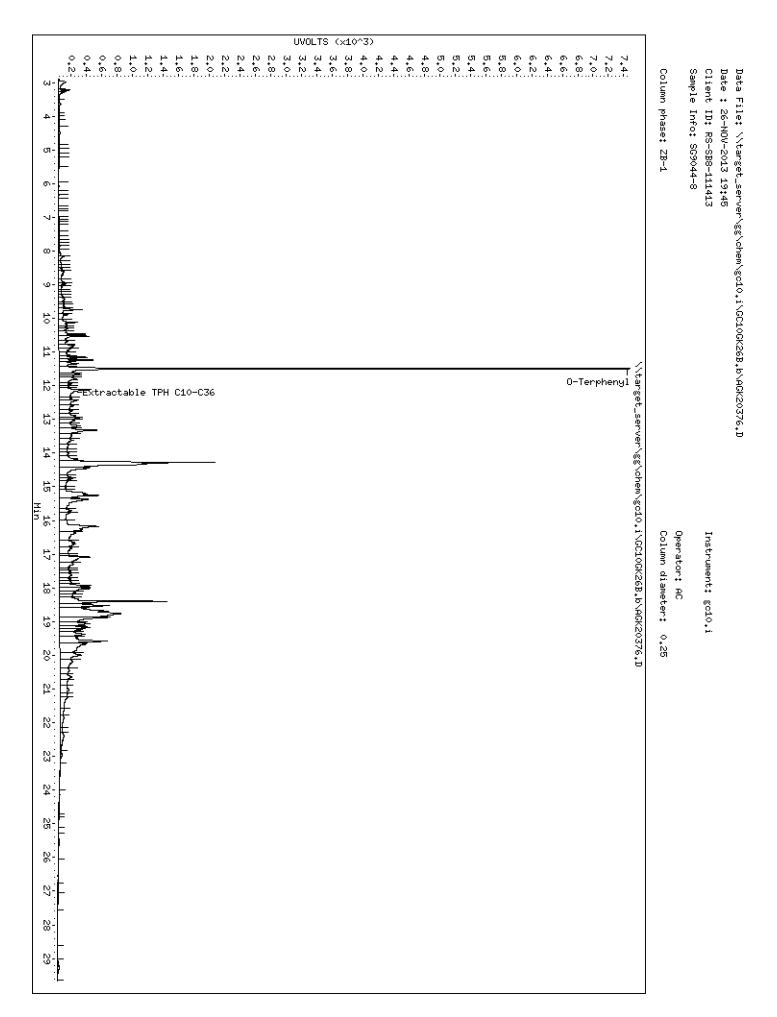
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Ws	0.03010	Weight of Sample (Kg)
M	22.065	Moisture (%)
Cpnd Variable		Local Compound Variable

						CONCENTRA	ATIONS	
						ON-COLUMN	FINAL	
Co	ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
==		====		======	======	======	======	========
\$	8 O-Terphenyl	11.494	11.536	-0.042	691534	17.7253	0.756	
S	10 Extractable TPH C10-C36	4.157-	-20.310		6527283	185.180	7.89	







Client: AECOM Environment

**Lab ID:** SG9044-8RE **Client ID:** RS-SB8-111413

Project: NAVSTA Newport CTO WE<sup>2</sup>

**SDG:** WE40-1

Lab File ID: AGL20014.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

Extract Date: 29-NOV-13

**Extracted By:** JMS **Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 78.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		7.5	mg/Kgdrywt	1	5	5.8	3.0	4.4
o-Terphenyl		47.1	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20014.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20014.D

Lab Smp Id: SG9044-8RE Client Smp ID: RS-SB8-111413

Inj Date : 02-DEC-2013 18:15

Operator : AC Smp Info : SG9044-8RE Misc Info : WG135478, WG135352, WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M Cpnd Variable	0.00100 0.03340	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%) Local Compound Variable

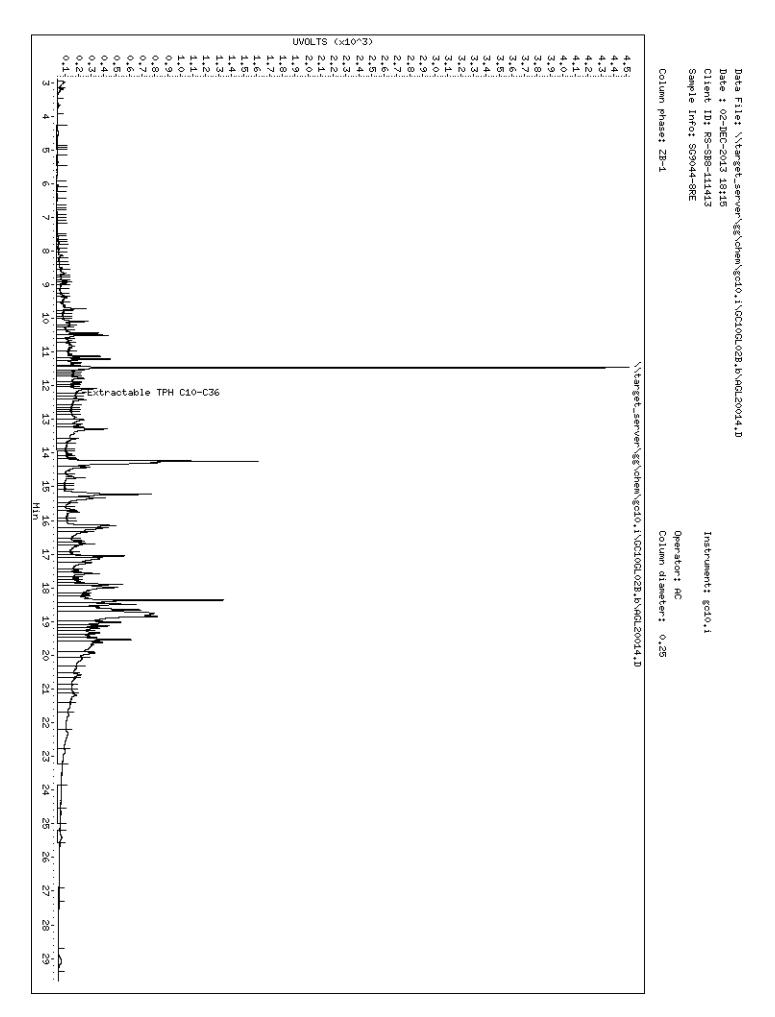
CONCENTRATIONS

		ON-COLUMN	FINAL
Compounds	RT EXP RT DLT I	RT RESPONSE (ug/ml)	(mg/Kgdrywt) REVIEW CODE
	==== ====== =====		=======================================
\$ 8 O-Terphenyl	11.463 11.536 -0.073	3 373081 9.41465	0.362(M)
S 10 Extractable TPH C10-C36	4.157-20.310	6901623 196.383	7.54(M) <b>M2</b>

#### QC Flag Legend

M - Compound response manually integrated.

1:01 pm, Dec 03, 2013







Client: AECOM Environment Lab ID: SG9044-9REDL Client ID: FD-SO-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGL20021.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13 Extract Date: 29-NOV-13

**Extracted By:** JMS

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 03-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		1100	mg/Kgdrywt	20	5	110	56.	82.
o-Terphenyl	D	0.00	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20021.D

Report Date: 03-Dec-2013 12:34

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20021.D Lab Smp Id: SG9044-9REDL Client Smp ID: FD-SO-111813

Inj Date : 03-DEC-2013 08:30

Operator : AC
Smp Info : SG9044-9REDL
Misc Info : WG135478,WG135352,WG126180-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 20.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03230	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

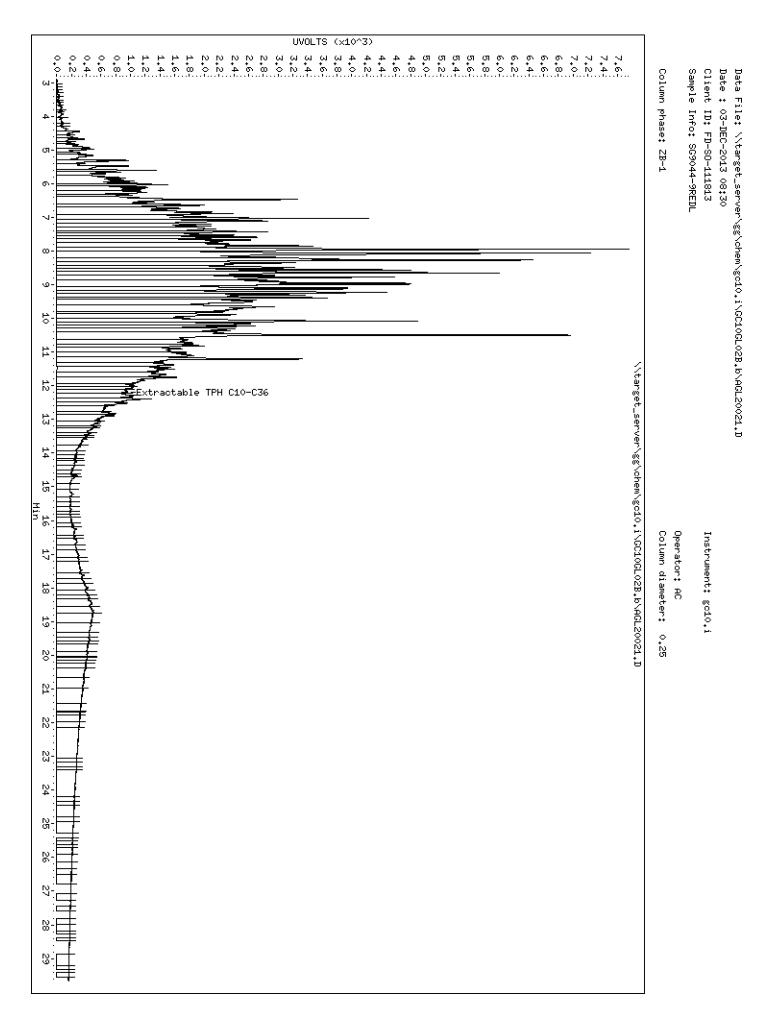
CONCENTRATIONS

			ON-COLUMN	FINAL	
Compounds	RT EXP RT	DLT RT RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	==== ====== :		======	======	========
S 10 Extractable TPH C10-C36	4.157-20.310	50219362	1492.84	1070(M)	M11

QC Flag Legend

M - Compound response manually integrated.

1:01 pm, Dec 03, 2013







**Client:** AECOM Environment

Lab ID: SG9180-11

Client ID: IDW-GW-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: AGK20373.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13

Extract Date: 22-NOV-13 Extracted By: AM

**Extraction Method:** SW846 3510

Lab Prep Batch: WG134891

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		250	ug/L	1	75	71.	8.6	53.
o-Terphenyl		66.7	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20373.D

Report Date: 03-Dec-2013 12:37

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20373.D

Lab Smp Id: SG9180-11 Client Smp ID: IDW-GW-112113

Inj Date : 26-NOV-2013 18:00

Operator : AC Smp Info : SG9180-11 Misc Info : WG135478, WG134891, WG125981-3 Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)

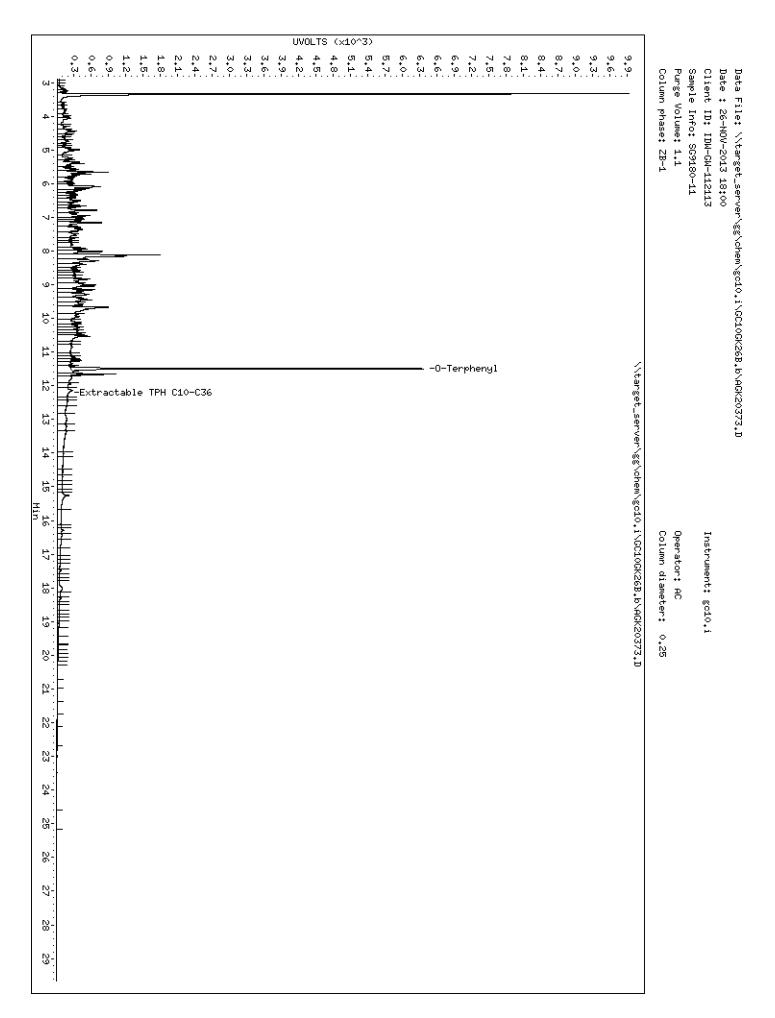
Cpnd Variable Local Compound Variable

		CONCENTRATIONS					
		ON-COLUMN	FINAL				
Compounds	RT EXP RT DLT R	T RESPONSE (ug/ml)	( ug/L)	REVIEW CODE			
	==== ====== =====	== ====== =====	======	========			
\$ 8 O-Terphenyl	11.495 11.536 -0.041	524067 13.3549	12.6(M)				
S 10 Extractable TPH C10-C36	4.157-20.310	9181566 264.620	250(M)	M2			

QC Flag Legend

M - Compound response manually integrated.

1:01 pm, Dec 03, 2013



## **Standards Data Section**





# Form 6 Initial Calibration Summary

Lab Name : Katahdin Analytical ServicesSDG: WE40-1Project : NAVSTA Newport CTO WE40-04Instrument ID: GC10Lab File IDs : AGF20129a. AGF20128a. AGF20125a.Column ID: A

AGF20129a. AGF20128a. AGF20125a. Column 1D: A

AGF20127a. AGF20126a. Calibration Date(s): 21-JUN-13 11:59

21-JUN-13 14:19

	5.0000	20.0000	50.0000	100.0000	200.0000	ľ	New	b	m1	m2	%RSD	Max	
	Level 1	Level 2	Level 3	Level 4	Level 5	(	Crv					%RSD	
C-10	163320	719091	1766492	3554381	6920731	I	LNR	-0.54511	34695		0.99980	0.99000	О
C-12	162378	727183	1766392	3552071	6906134	I	LNR	-0.64301	34615		0.99977	0.99000	О
C-14	163593	722632	1760926	3540546	6873290	I	LNR	-0.68026	34454		0.99975	0.99000	О
C-16	166504	722063	1765314	3541554	6861051	I	LNR	-0.77124	34393		0.99972	0.99000	О
C-18	164796	717237	1765250	3513593	6825372	I	LNR	-0.78516	34200		0.99974	0.99000	О
C-19	161894	709381	1737651	3478788	6757572	I	LNR	-0.71226	33868		0.99976	0.99000	О
C-20	159499	704623	1745148	3459665	6731462	I	LNR	-0.74839	33730		0.99975	0.99000	О
C-22	161726	696892	1751133	3451792	6658975	I	LNR	-0.98970	33393		0.99957	0.99000	О
C-24	159641	695379	1744275	3434791	6719882	I	LNR	-0.65793	33656		0.99981	0.99000	О
C-26	154640	684702	1709645	3361153	6494227	I	LNR	-1.00012	32557		0.99959	0.99000	О
C-28	153723	678278	1695449	3330843	6432407	I	LNR	-1.02200	32248		0.99957	0.99000	О
C-30	151019	513749	1634412	3206144	6225260	I	LNR	0.24392	31404		0.99916	0.99000	О
C-36	120691	671133	1606910	3140504	5995689	I	LNR	-1.38206	30094		0.99912	0.99000	О
Extractable TPH	2204850	9679357	24197260	48087898	93286162	I	LNR	-10.17447	33413		0.99971	0.99000	М
O-Terphenyl	74540	320377	793080	1574737	3059024	I	LNR	-0.32158	38319		0.99974	0.99000	

Legend: O = Kept Original Curve

Y = Failed Minimum RF

W = Failed %RSD Value

Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20130a.D

Report Date: 23-Jul-2013 15:48

#### Katahdin Analytical Services

#### RECOVERY REPORT

Client Name: Client SDG: SDGa00508

Sample Matrix: LIQUID Fraction: DRO

Lab Smp Id: WG126180-6

Level: LOW Operator: AC Data Type: GC DATA SampleType: LCS SpikeList File: IND\_CHECK.spk Quant Type: ESTD

Sublist File: IND\_CHECK.spk Quant Type: ESTD Sublist File: INDSOURCE.sub Method File: \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m Misc Info: WG126180,WG126180,WG126180-3,SG4839-2

SPIKE COMPOUND	CONC ADDED	CONC RECOVERED	% RECOVERED	LIMITS
	ug/L	ug/L		
2 C-9	50.0	49.7	99.37	80-120
3 C-10	50.0	49.8	99.63	80-120
4 C-12	50.0	50.0	100.01	80-120
5 C-14	50.0	50.0	100.07	80-120
6 C-16	50.0	49.4	98.73	80-120
7 C-18	50.0	49.5	98.99	80-120
9 C-19	50.0	49.9	99.77	80-120
11 C-20	50.0	49.9	99.86	80-120
12 C-22	50.0	50.3	100.69	80-120
13 C-24	50.0	49.2	98.40	80-120
14 C-26	50.0	49.8	99.61	80-120
15 C-28	50.0	49.4	98.83	80-120
16 C-30	50.0	49.1	98.15	80-120
17 C-36	50.0	44.2	88.40	80-120

Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20125a.D

Report Date: 19-Jul-2013 09:42

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20125a.D

Lab Smp Id:  $WG126\overline{180-3}$ Client Smp ID: Initial Calibration

Inj Date : 21-JUN-2013 11:59

Operator : AC Smp Info : WG126180-3 Inst ID: gc10.i

Misc Info :

Comment :
Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal File: AGF20125a.D Cal Date : 21-JUN-2013 11:59

Als bottle: 2 Calibration Sample, Level: 3

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

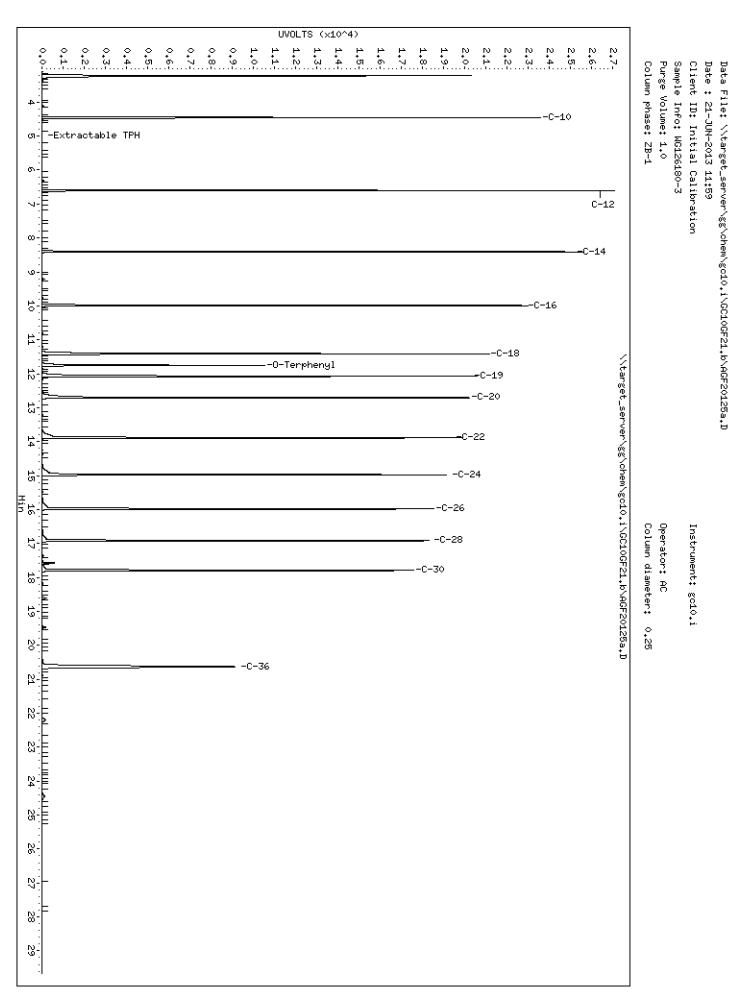
Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cond Wariable		Iogal Compound Variabl

Local Compound Variable Cpnd Variable

						AMOUN'	rs	
						CAL-AMT	ON-COL	
Con	pounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
===		====	======	======	======	======	======	========
	2 C-9	3.220	3.221	-0.001	1748258	50.0000	50.0	
	3 C-10	4.456	4.456	0.000	1766492	50.0000	50.0	
	4 C-12	6.602	6.602	0.000	1766392	50.0000	50.0	
	5 C-14	8.405	8.405	0.000	1760926	50.0000	50.0	
	6 C-16	9.989	9.989	0.000	1765314	50.0000	50.0	
	7 C-18	11.413	11.413	0.000	1765250	50.0000	50.0	
\$	8 O-Terphenyl	11.752	11.752	0.000	793080	20.0000	20.0	
	9 C-19	12.073	12.073	0.000	1737651	50.0000	50.0	
	11 C-20	12.704	12.705	-0.001	1745148	50.0000	50.0	
	12 C-22	13.886	13.886	0.000	1751133	50.0000	50.0	
	13 C-24	14.974	14.974	0.000	1744275	50.0000	50.0	
	14 C-26	15.981	15.981	0.000	1709645	50.0000	50.0	
	15 C-28	16.917	16.918	-0.001	1695449	50.0000	50.0	
	16 C-30	17.792	17.793	-0.001	1634412	50.0000	50.0	
	17 C-36	20.630	20.630	0.000	1606910	50.0000	50.0	
M	33 Extractable TPH				24197255	700.000	700	



Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20126a.D

Report Date: 19-Jul-2013 09:43

#### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20126a.D

Lab Smp Id: WG126180-5 Client Smp ID: Initial Calibration

Inj Date : 21-JUN-2013 12:34

Operator : AC Smp Info : WG126180-5 Inst ID: gc10.i

Misc Info : Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal File: AGF20126a.D Cal Date : 21-JUN-2013 12:34

Als bottle: 3 Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

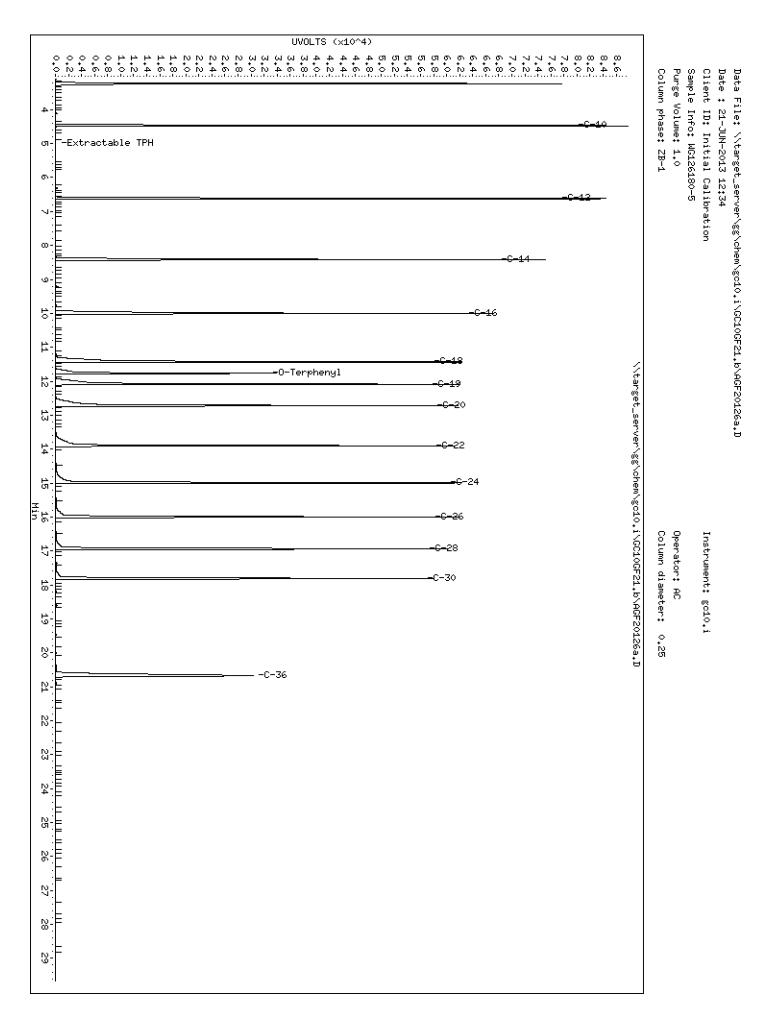
Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt	0.00100	Dilution Factor Final Volume (L)
Vo Cond Variable	1.000	Sample Volume (L)

Local Compound Variable Cpnd Variable

					AMOUN'	TS	
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
	====	======	======	======	======	======	========
2 C-9	3.232	3.221	0.011	6884106	200.000	200	
3 C-10	4.470	4.456	0.014	6920731	200.000	200	
4 C-12	6.615	6.602	0.013	6906134	200.000	200	
5 C-14	8.417	8.405	0.012	6873290	200.000	200	
6 C-16	10.002	9.989	0.013	6861051	200.000	200	
7 C-18	11.427	11.413	0.014	6825372	200.000	200	
\$ 8 O-Terphenyl	11.763	11.752	0.011	3059024	80.0000	79.9	
9 C-19	12.087	12.073	0.014	6757572	200.000	200	
11 C-20	12.718	12.705	0.013	6731462	200.000	200	
12 C-22	13.902	13.886	0.016	6658975	200.000	200	
13 C-24	14.991	14.974	0.017	6719882	200.000	200	
14 C-26	15.999	15.981	0.018	6494227	200.000	200	
15 C-28	16.936	16.918	0.018	6432407	200.000	200	
16 C-30	17.811	17.793	0.018	6225260	200.000	200	
17 C-36	20.669	20.630	0.039	5995689	200.000	199	
M 33 Extractable TPH				93286158	2800.00	2800	



Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20127a.D

Report Date: 19-Jul-2013 09:43

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20127a.D

Lab Smp Id:  $WG126\overline{1}80\overline{-4}$ Client Smp ID: Initial Calibration

Inj Date : 21-JUN-2013 13:09

Operator : AC Smp Info : WG126180-4 Inst ID: gc10.i

Misc Info : Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal Date : 21-JUN-2013 13:09 Cal File: AGF20127a.D

Als bottle: 1 Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

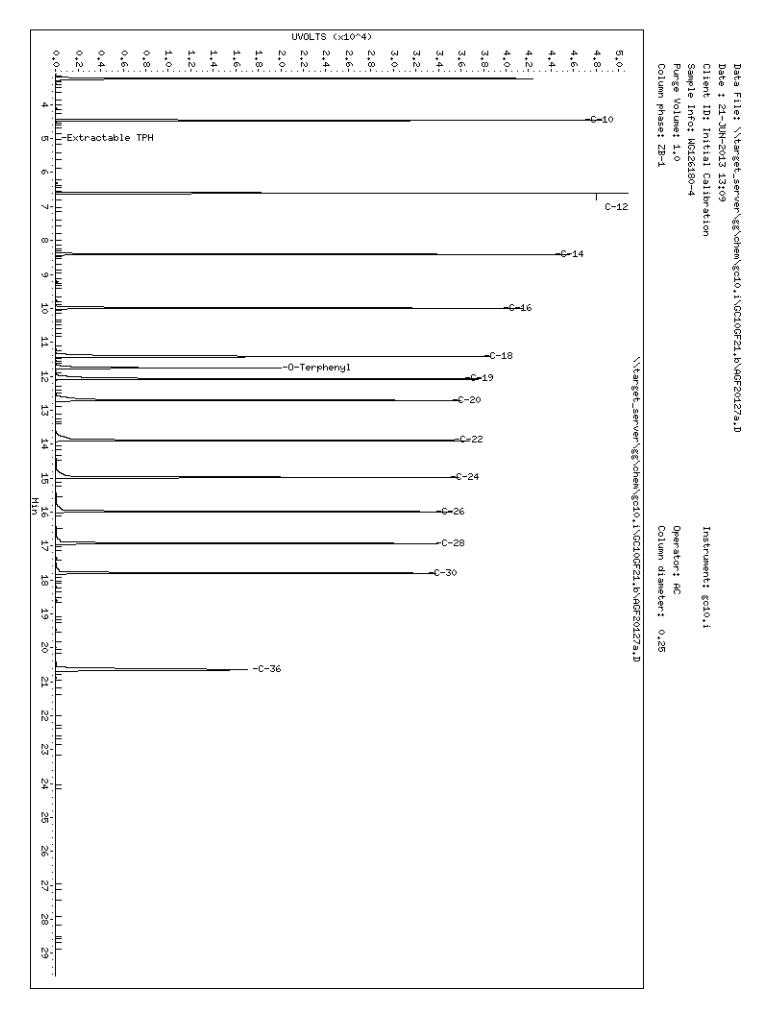
Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (L)
O		Tagal Commonwed Track abl

Cpnd Variable Local Compound Variable

						AMOUN'	rs	
						CAL-AMT	ON-COL	
Compou	ınds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
=====		====	======	======	======	======	======	========
2	C-9	3.228	3.221	0.007	3522067	100.000	102	
3	C-10	4.462	4.456	0.006	3554381	100.000	102	
4	C-12	6.608	6.602	0.006	3552071	100.000	102	
5	C-14	8.410	8.405	0.005	3540546	100.000	102	
6	C-16	9.995	9.989	0.006	3541554	100.000	102	
7	C-18	11.419	11.413	0.006	3513593	100.000	102	
\$ 8	O-Terphenyl	11.757	11.752	0.005	1574737	40.0000	40.7	
9	C-19	12.079	12.073	0.006	3478788	100.000	102	
11	C-20	12.710	12.705	0.005	3459665	100.000	102	
12	C-22	13.892	13.886	0.006	3451792	100.000	102	
13	C-24	14.981	14.974	0.007	3434791	100.000	101	
14	C-26	15.988	15.981	0.007	3361153	100.000	102	
15	C-28	16.925	16.918	0.007	3330843	100.000	102	
16	C-30	17.799	17.793	0.006	3206144	100.000	102	
17	C-36	20.644	20.630	0.014	3140504	100.000	103	
M 33	Extractable TPH				48087892	1400.00	1430	



Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20128a.D

Report Date: 19-Jul-2013 09:43

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20128a.D

Lab Smp Id: WG126180-2 Client Smp ID: Initial Calibration

Inj Date : 21-JUN-2013 13:44

Operator : AC Smp Info : WG126180-2 Inst ID: gc10.i

Misc Info : Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal File: AGF20128a.D Cal Date : 21-JUN-2013 13:44

Als bottle: 1 Calibration Sample, Level: 2

Dil Factor: 1.00000

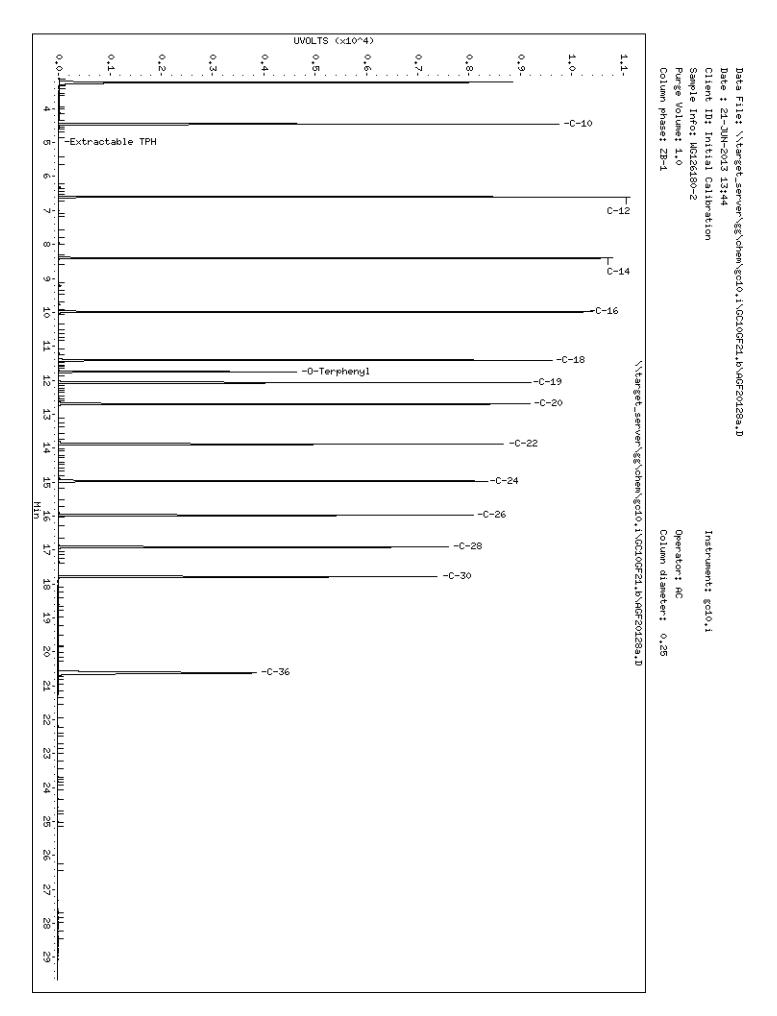
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (L)
Cond Variable		I agal Compound Variable

					AMOUN	TS	
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
=======================================	====	======	======	======	======	======	========
2 C-9	3.223	3.221	0.002	717008	20.0000	20.0	
3 C-10	4.455	4.456	-0.001	719091	20.0000	19.9	
4 C-12	6.600	6.602	-0.002	727183	20.0000	20.0	
5 C-14	8.402	8.405	-0.003	722632	20.0000	20.0	
6 C-16	9.986	9.989	-0.003	722063	20.0000	19.9	
7 C-18	11.409	11.413	-0.004	717237	20.0000	19.8	
\$ 8 O-Terphenyl	11.750	11.752	-0.002	320377	8.00000	7.91	
9 C-19	12.070	12.073	-0.003	709381	20.0000	19.9	
11 C-20	12.701	12.705	-0.004	704623	20.0000	19.8	
12 C-22	13.882	13.886	-0.004	696892	20.0000	19.5	
13 C-24	14.970	14.974	-0.004	695379	20.0000	19.7	
14 C-26	15.977	15.981	-0.004	684702	20.0000	19.6	
15 C-28	16.913	16.918	-0.005	678278	20.0000	19.6	
16 C-30	17.788	17.793	-0.005	513749	20.0000	16.6	
17 C-36	20.621	20.630	-0.009	671133	20.0000	20.1	
M 33 Extractable TPH				9679351	280.000	274	



Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20129a.D

Report Date: 19-Jul-2013 09:43

### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20129a.D

Lab Smp Id: WG126180-1 Client Smp ID: Initial Calibration

Inj Date : 21-JUN-2013 14:19

Operator : AC Smp Info : WG126180-1 Inst ID: gc10.i

Misc Info : Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal File: AGF20129a.D Cal Date : 21-JUN-2013 14:19

Als bottle: 1 Calibration Sample, Level: 1

Dil Factor: 1.00000

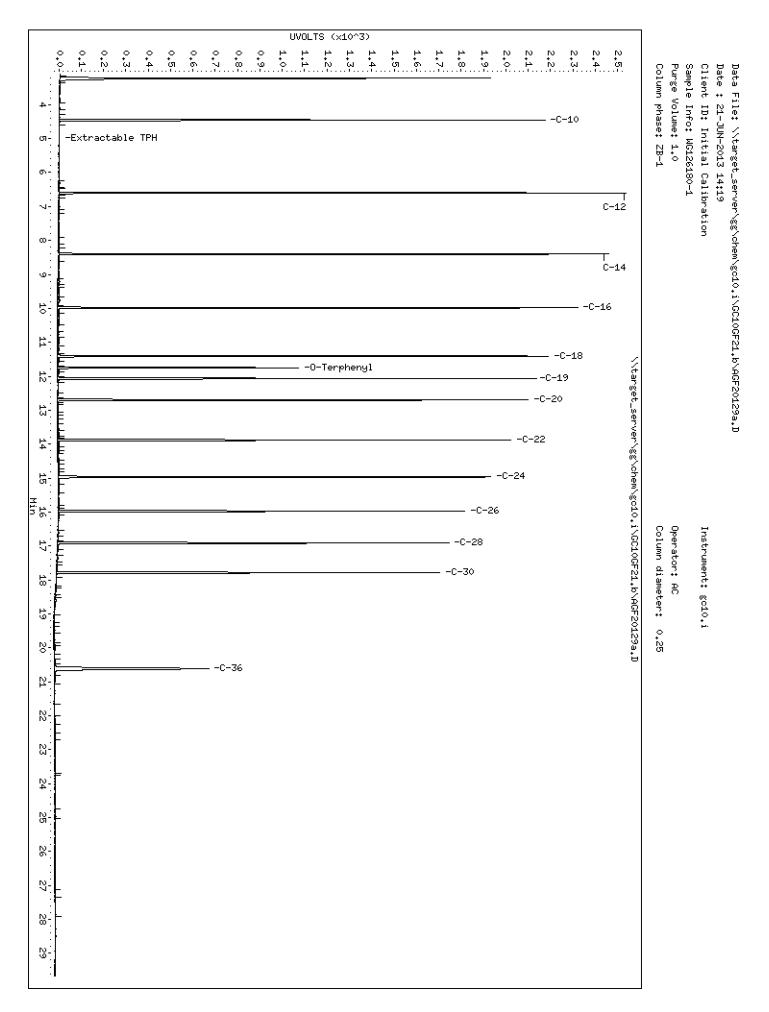
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt	0.00100	Dilution Factor Final Volume (L)
Vo Cond Variable	1.000	Sample Volume (L)

						AMOUNT	rs	
						CAL-AMT	ON-COL	
Compo	ounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
=====		====	======	======	======	======	======	========
2	2 C-9	3.220	3.221	-0.001	161421	5.00000	4.21	
3	3 C-10	4.455	4.456	-0.001	163320	5.00000	4.16	
4	ł C-12	6.599	6.602	-0.003	162378	5.00000	4.05	
5	5 C-14	8.400	8.405	-0.005	163593	5.00000	4.07	
6	5 C-16	9.984	9.989	-0.005	166504	5.00000	4.07	
7	7 C-18	11.406	11.413	-0.007	164796	5.00000	4.03	
\$ 8	3 O-Terphenyl	11.749	11.752	-0.003	74540	2.00000	1.62	
9	9 C-19	12.067	12.073	-0.006	161894	5.00000	4.07	
11	L C-20	12.698	12.705	-0.007	159499	5.00000	3.98	
12	2 C-22	13.880	13.886	-0.006	161726	5.00000	3.85	
13	3 C-24	14.968	14.974	-0.006	159641	5.00000	4.08	
14	1 C-26	15.974	15.981	-0.007	154640	5.00000	3.75	
15	5 C-28	16.910	16.918	-0.008	153723	5.00000	3.74	
16	5 C-30	17.784	17.793	-0.009	151019	5.00000	5.05	
17	7 C-36	20.613	20.630	-0.017	120691	5.00000	2.63	
м 33	B Extractable TPH				2204845	70.0000	55.8	



Data File: \target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20130a.D

Report Date: 23-Jul-2013 15:48

### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\GC10GF21.b\AGF20130a.D

Lab Smp Id:  $WG126\overline{1}80\overline{-}6$ 

Inj Date : 21-JUN-2013 14:55

Operator : AC Inst ID: gc10.i

Smp Info : WG126180-6, ORANGE-3

Misc Info: WG126180, WG126180, WG126180-3, SG4839-2

Comment :

Method : \\target\_server\gg\chem\gc10.i\GC10GF21.b\tph07b.m

Meth Date: 27-Jun-2013 10:26 acronin Quant Type: ESTD Cal Date: 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 1 QC Sample: LCS

Dil Factor: 1.00000

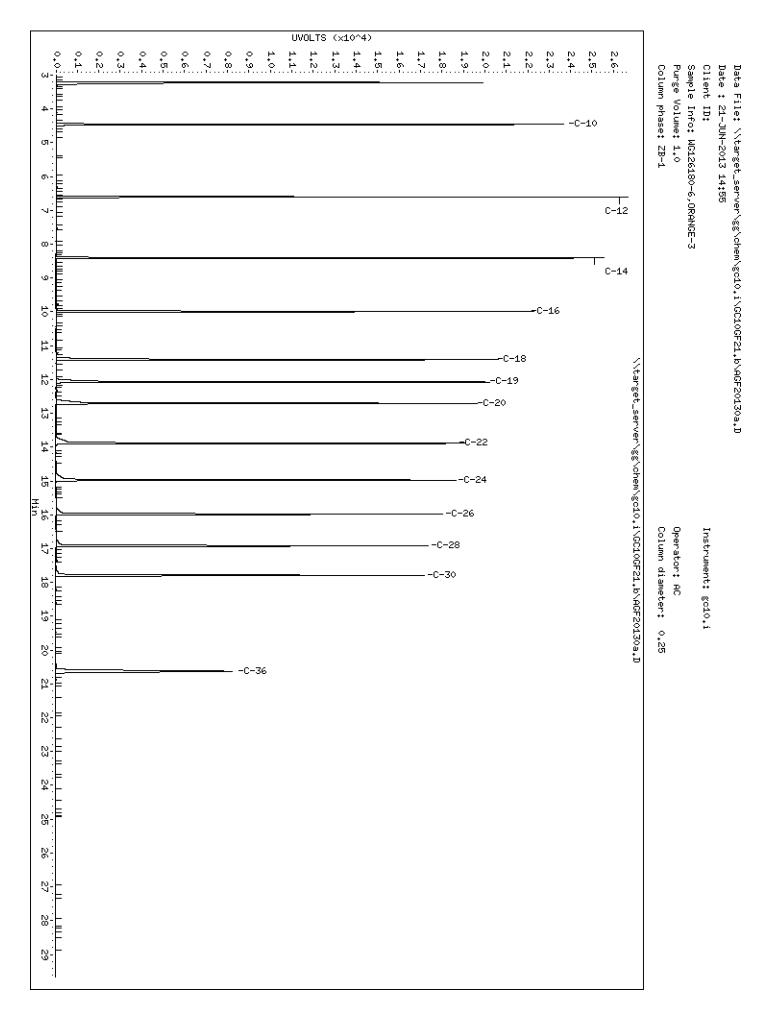
Integrator: HP Genie Compound Sublist: INDSOURCE.sub

Target Version: 4.12
Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

CONCENTRATIONS ON-COLUMN FINAL RT EXP RT DLT RT RESPONSE (ug/ml) Compounds ( ug/L) REVIEW CODE ======= --------- ------ ------======== 49.6853 2 C-9 3.221 3.221 0.000 1730094 49.8 3 C-10 4.458 4.456 0.002 1747283 49.8165 6.604 6.602 0.002 1753173 50.0048 50.0 4 C-12 50.0 8.406 8.405 0.001 1747409 50.0365 5 C-14 6 C-16 9.990 9.989 0.001 1724376 49.3663 49.4 11.413 11.413 0.000 1719570 49.4941 7 C-18 12.073 12.073 0.000 1713704 49.8871 9 C-19 49.9 12.705 12.705 0.000 1709328 49.9277 11 C-20 49.9 50.3 49.2 13.886 13.886 0.000 1714157 50.3437 12 C-22 14.974 14.974 0.000 1677972 49.1982 13 C-24 15.981 15.981 0.000 1654070 49.8047 49.8 14 C-26 16.918 16.918 0.000 1626433 49.4133 49.4 15 C-28 49.1 17.792 17.793 -0.001 1533546 49.0766 16 C-30 17 C-36 20.627 20.630 -0.003 1371789 44.2009 44.2







Lab Name: Katahdin Analytical Services

 Project :NAVSTA Newport CTO WE40-04 (6030727)
 SDG: WE40-1

 Lab ID :WG135478-1
 Analytical Date: 11/26/13 11:32

Lab File ID :AGK20364A.D Instrument ID: GC10
Initial Calibration Date(s): 06/21/13 11:59 06/21/13 14:19 Column ID: A

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
3 C-10	50.00000	54.01138	37857	0.010	8.02276	20.00000	Linear
4 C-12	50.00000	53.93841	37787	0.010	7.87683	20.00000	Linear
5 C-14	50.00000	54.68515	38152	0.010	9.37030	20.00000	Linear
6 C-16	50.00000	55.02145	38377	0.010	10.04290	20.00000	Linear
7 C-18	50.00000	55.82125	38719	0.010	11.64249	20.00000	Linear
9 C-19	50.00000	56.50740	38758	0.010	13.01481	20.00000	Linear
11 C-20	50.00000	56.65833	38727	0.010	13.31665	20.00000	Linear
12 C-22	50.00000	56.80882	38601	0.010	13.61764	20.00000	Linear
13 C-24	50.00000	56.96510	38788	0.010	13.93019	20.00000	Linear
14 C-26	50.00000	57.79321	38283	0.010	15.58642	20.00000	Linear
15 C-28	50.00000	58.24453	38224	0.010	16.48905	20.00000	Linear
16 C-30	50.00000	59.15307	37000	0.010	18.30614	20.00000	Linear
17 C-36	50.00000	58.78804	36216	0.010	17.57609	20.00000	Linear
33 Extractable TPH	700	734	35392	0.010	4.91373	20.00000	Linear
8 O-Terphenyl	20.00000	20.56265	40013	0.010	2.81325	20.00000	Linear

<sup>\* =</sup> Compound out of QC criteria

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20364A.D

Report Date: 03-Dec-2013 12:56

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20364A.D

Lab Smp Id: WG135478-1

Inj Date : 26-NOV-2013 11:32

Inst ID: gc10.i

Comment :
Method : \target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51 Continuing Calibration Sample

Dil Factor: 1.00000

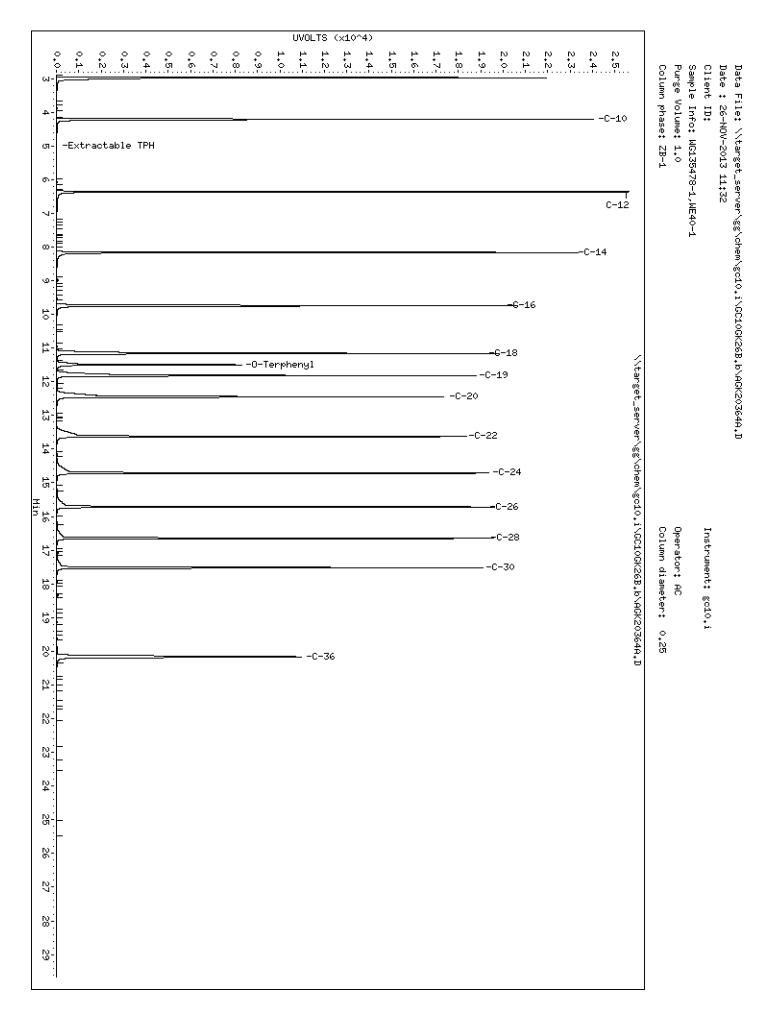
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cond Wariable		Iogal Compound Variabl

					AMOUN	TS	
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
	====		======		======	======	========
3 C-10	4.211	4.256	-0.045	1892825	50.0000	54.0	
4 C-12	6.362	6.403	-0.041	1889334	50.0000	53.9	
5 C-14	8.164	8.204	-0.040	1907576	50.0000	54.7	
6 C-16	9.743	9.784	-0.041	1918872	50.0000	55.0	
7 C-18	11.161	11.202	-0.041	1935959	50.0000	55.8	
\$ 8 O-Terphenyl	11.496	11.536	-0.040	800259	20.0000	20.6	
9 C-19	11.819	11.861	-0.042	1937923	50.0000	56.5	
11 C-20	12.449	12.489	-0.040	1936357	50.0000	56.6	
12 C-22	13.627	13.666	-0.039	1930043	50.0000	56.8	
13 C-24	14.711	14.749	-0.038	1939377	50.0000	57.0	
14 C-26	15.715	15.751	-0.036	1914154	50.0000	57.8	
15 C-28	16.647	16.683	-0.036	1911220	50.0000	58.2	
16 C-30	17.520	17.553	-0.033	1849990	50.0000	59.2	
17 C-36	20.163	20.210	-0.047	1810779	50.0000	58.8	
M 33 Extractable TPH				24774409	700.000	734	







Lab Name: Katahdin Analytical Services

 Project :NAVSTA Newport CTO WE40-04 (6030727)
 SDG: WE40-1

 Lab ID :WG135478-2
 Analytical Date: 11/26/13 20:54

Lab File ID :AGK20378A.DInstrument ID: GC10Initial Calibration Date(s): 06/21/13 11:59 06/21/13 14:19Column ID: A

Compound	RRF/Amount	RF20	CCAL RRF20	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
3 C-10	20.00000	21.27495	37852	0.010	6.37475	20.00000	Linear
4 C-12	20.00000	20.97128	37409	0.010	4.85641	20.00000	Linear
5 C-14	20.00000	21.70174	38558	0.010	8.50870	20.00000	Linear
6 C-16	20.00000	22.16510	39442	0.010	10.82550	20.00000	Linear
7 C-18	20.00000	22.27516	39434	0.010	11.37578	20.00000	Linear
9 C-19	20.00000	22.86761	39930	0.010	14.33804	20.00000	Linear
11 C-20	20.00000	22.79470	39706	0.010	13.97348	20.00000	Linear
12 C-22	20.00000	22.80446	39727	0.010	14.02231	20.00000	Linear
13 C-24	20.00000	23.13237	40035	0.010	15.66184	20.00000	Linear
14 C-26	20.00000	23.38858	39702	0.010	16.94291	20.00000	Linear
15 C-28	20.00000	23.70118	39864	0.010	18.50588	20.00000	Linear
16 C-30	20.00000	25.70026	39972	0.010	28.50131	20.00000	Linear
17 C-36	20.00000	23.51781	37467	0.010	17.58905	20.00000	Linear
33 Extractable TPH	280	296	36364	0.010	5.81971	20.00000	Linear
8 O-Terphenyl	8.00000	8.31292	41358	0.010	3.91155	20.00000	Linear

<sup>\* =</sup> Compound out of QC criteria

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20378A.D

Report Date: 03-Dec-2013 12:12

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20378A.D

Lab Smp Id:  $WG135\overline{4}78\overline{-2}$ 

Inj Date : 26-NOV-2013 20:54

Operator : AC Inst ID: gc10.i

Smp Info : WG135478-2, WE40-1

Misc Info: WG135478, WG135478, WG126180-3, SG9180-11

Comment :
Method : \target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 27-Nov-2013 08:28 acronin Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

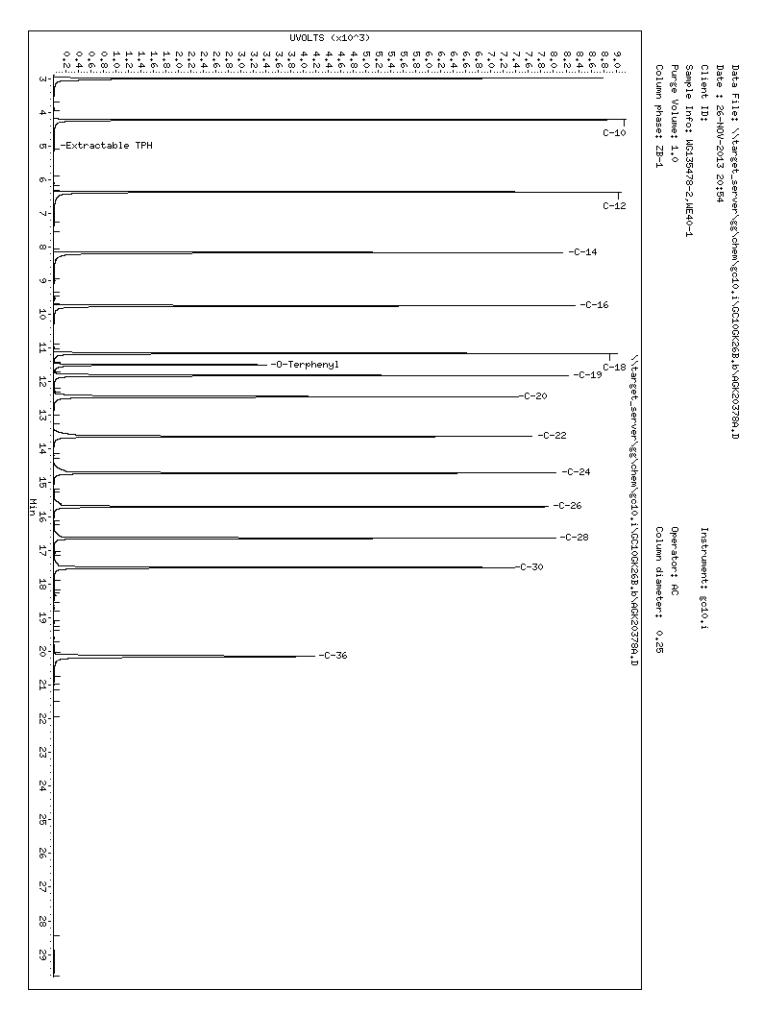
Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

AMOUNTS CAL-AMT ON-COL RT EXP RT DLT RT RESPONSE (ug/ml) (ug/ml) Compounds REVIEW CODE ---- ------ ------======= ======== 
 1.220
 -0.032
 757042
 50.0000
 21.3

 6.369
 6.403
 -0.034
 748178
 50.0000
 21.0

 8.169
 8.204
 -0.035
 771156
 50.0000
 21.7

 9.746
 9.784
 -0.038
 788847
 50.0000
 3 C-10 4 C-12 5 C-14 6 C-16 11.160 11.202 -0.042 788671 50.0000 7 C-18 22.3 \$ 8 O-Terphenyl 9 C-19 11.499 11.536 -0.037 330864 20.0000 11.818 11.861 -0.043 798606 50.0000 12.448 12.489 -0.041 794120 50.0000 22.9 22.8 11 C-20 13.624 13.666 -0.042 794549 50.0000 22.8 12 C-22 23.1 23.4 14.708 14.749 -0.041 800693 50.0000 13 C-24 15.710 15.751 -0.041 794031 50.0000 14 C-26 23.7 15 C-28 16.642 16.683 -0.041 797270 50.0000 25.7 17.514 17.553 -0.039 799434 50.0000 16 C-30 20.152 20.210 -0.058 749345 50.0000 23.5 17 C-36 M 33 Extractable TPH 10181942 700.000 296







Lab Name: Katahdin Analytical Services

 Project :NAVSTA Newport CTO WE40-04 (6030727)
 SDG: WE40-1

 Lab ID :WG135478-3
 Analytical Date: 12/02/13 13:29

Lab File ID :AGL20006.D Instrument ID: GC10
Initial Calibration Date(s): 06/21/13 11:59 06/21/13 14:19 Column ID: A

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
3 C-10	50.00000	45.35676	31851	0.010	-9.28648	20.00000	Linear
4 C-12	50.00000	46.12425	32377	0.010	-7.75150	20.00000	Linear
5 C-14	50.00000	46.65915	32621	0.010	-6.68169	20.00000	Linear
6 C-16	50.00000	46.89881	32790	0.010	-6.20237	20.00000	Linear
7 C-18	50.00000	47.26911	32869	0.010	-5.46178	20.00000	Linear
9 C-19	50.00000	47.72998	32813	0.010	-4.54004	20.00000	Linear
11 C-20	50.00000	47.86065	32792	0.010	-4.27870	20.00000	Linear
12 C-22	50.00000	48.18889	32844	0.010	-3.62223	20.00000	Linear
13 C-24	50.00000	48.13073	32841	0.010	-3.73854	20.00000	Linear
14 C-26	50.00000	48.76621	32405	0.010	-2.46757	20.00000	Linear
15 C-28	50.00000	48.96931	32242	0.010	-2.06137	20.00000	Linear
16 C-30	50.00000	51.11849	31953	0.010	2.23698	20.00000	Linear
17 C-36	50.00000	50.14193	31012	0.010	0.28386	20.00000	Linear
33 Extractable TPH	700	623	30101	0.010	-10.96939	20.00000	Linear
8 O-Terphenyl	20.00000	17.58886	34315	0.010	-12.05568	20.00000	Linear

<sup>\* =</sup> Compound out of QC criteria

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20006.D

Report Date: 03-Dec-2013 12:14

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20006.D

Lab Smp Id: WG135478-3

Inj Date : 02-DEC-2013 13:29

Operator : AC Smp Info : WG135478-3,WE40-1 Inst ID: gc10.i

Misc Info : WG135478, WG135478, WG126180-3, SG9044-1

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:09 acronin Quant Type: ESTD

Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D Continuing Calibration Sample

Als bottle: 51 Dil Factor: 1.00000

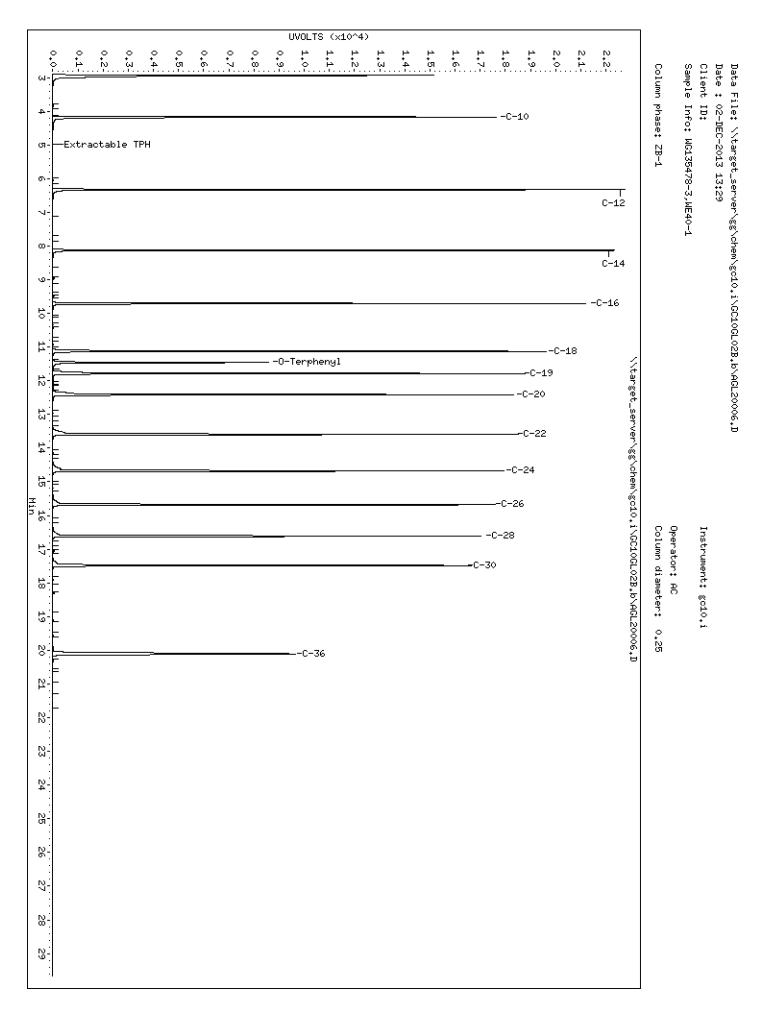
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description	
DF Vt Ws M Cpnd Variable	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%) Local Compound Variable	

						AMOUN'	rs	
						CAL-AMT	ON-COL	
Compo	ounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
=====		====	======	======	======	======	======	========
3	3 C-10	4.175	4.256	-0.081	1592555	50.0000	45.4	
4	1 C-12	6.329	6.403	-0.074	1618847	50.0000	46.1	
į	5 C-14	8.129	8.204	-0.075	1631046	50.0000	46.6	
6	5 C-16	9.708	9.784	-0.076	1639511	50.0000	46.9	
7	7 C-18	11.126	11.202	-0.076	1643473	50.0000	47.3	
\$ 8	3 O-Terphenyl	11.459	11.536	-0.077	686307	20.0000	17.6	
9	9 C-19	11.785	11.861	-0.076	1640648	50.0000	47.7	
1.	L C-20	12.414	12.489	-0.075	1639607	50.0000	47.9	
12	2 C-22	13.592	13.666	-0.074	1642201	50.0000	48.2	
13	3 C-24	14.676	14.749	-0.073	1642045	50.0000	48.1	
14	1 C-26	15.679	15.751	-0.072	1620259	50.0000	48.8	
15	5 C-28	16.611	16.683	-0.072	1612114	50.0000	49.0	
16	5 C-30	17.483	17.553	-0.070	1597671	50.0000	51.1	
17	7 C-36	20.105	20.210	-0.105	1550580	50.0000	50.1	
M 33	B Extractable TPH				21070557	700.000	623	







Lab Name: Katahdin Analytical Services

 Project :NAVSTA Newport CTO WE40-04 (6030727)
 SDG: WE40-1

 Lab ID :WG135478-4
 Analytical Date: 12/02/13 20:35

Lab File ID :AGL20018.D Instrument ID: GC10
Initial Calibration Date(s): 06/21/13 11:59 06/21/13 14:19 Column ID: A

Compound	RRF/Amount	RF20	CCAL RRF20	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
3 C-10	20.00000	20.61324	36704	0.010	3.06619	20.00000	Linear
4 C-12	20.00000	20.86098	37218	0.010	4.30491	20.00000	Linear
5 C-14	20.00000	21.23631	37756	0.010	6.18156	20.00000	Linear
6 C-16	20.00000	21.30437	37962	0.010	6.52185	20.00000	Linear
7 C-18	20.00000	21.37601	37896	0.010	6.88007	20.00000	Linear
9 C-19	20.00000	21.58971	37766	0.010	7.94855	20.00000	Linear
11 C-20	20.00000	21.57064	37642	0.010	7.85320	20.00000	Linear
12 C-22	20.00000	21.70760	37896	0.010	8.53801	20.00000	Linear
13 C-24	20.00000	22.00203	38133	0.010	10.01014	20.00000	Linear
14 C-26	20.00000	22.02170	37476	0.010	10.10850	20.00000	Linear
15 C-28	20.00000	22.18812	37424	0.010	10.94058	20.00000	Linear
16 C-30	20.00000	23.85197	37070	0.010	19.25984	20.00000	Linear
17 C-36	20.00000	23.79703	37887	0.010	18.98516	20.00000	Linear
33 Extractable TPH	280	284	34916	0.010	1.47133	20.00000	Linear
8 O-Terphenyl	8.00000	7.95832	39660	0.010	-0.52099	20.00000	Linear

<sup>\* =</sup> Compound out of QC criteria

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20018.D

Report Date: 03-Dec-2013 12:15

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20018.D

Lab Smp Id: WG135478-4

Inj Date : 02-DEC-2013 20:35

Operator : AC Smp Info : WG135478-4,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG135478, WG126180-3, SG9044-1

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:09 acronin Quant Type: ESTD

Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D Als bottle: 51 Continuing Calibration Sample

Dil Factor: 1.00000

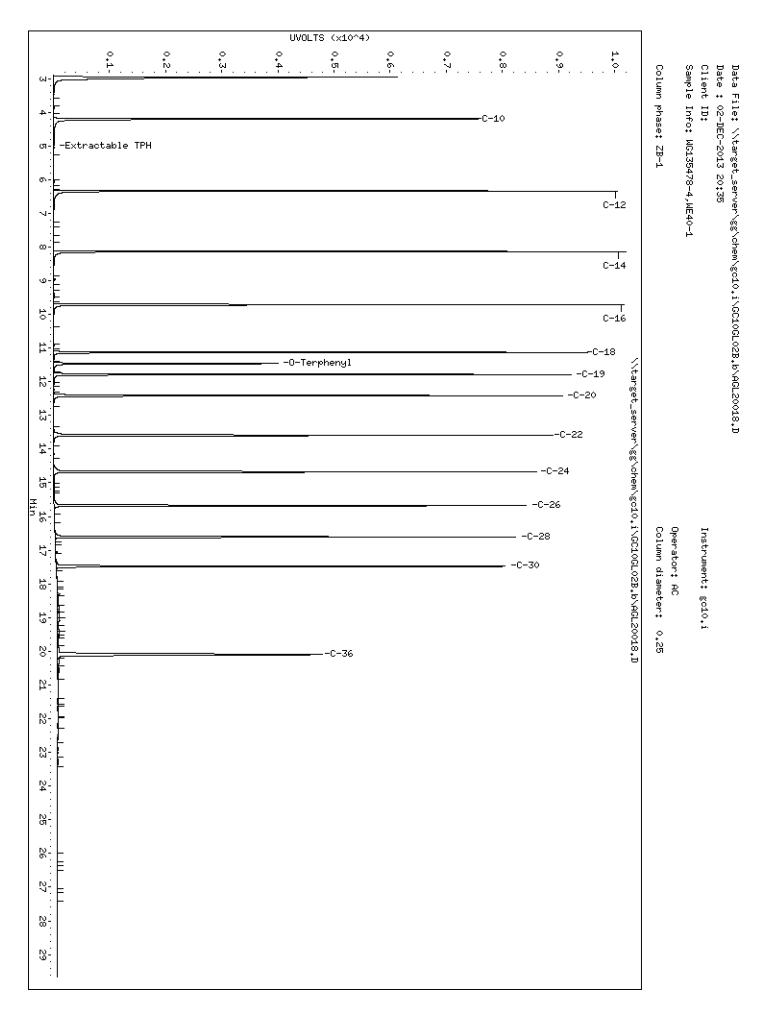
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description	
DF Vt Ws M Cpnd Variable	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%) Local Compound Variable	

						AMOUN	rs	
						CAL-AMT	ON-COL	
Compo	unds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
=====	=======================================	====	======	======	======	======	======	========
3	C-10	4.198	4.256	-0.058	734084	50.0000	20.6	
4	C-12	6.341	6.403	-0.062	744360	50.0000	20.9	
5	C-14	8.137	8.204	-0.067	755120	50.0000	21.2	
6	C-16	9.713	9.784	-0.071	759244	50.0000	21.3	
7	C-18	11.129	11.202	-0.073	757920	50.0000	21.4	
\$ 8	O-Terphenyl	11.462	11.536	-0.074	317276	20.0000	7.96	
9	C-19	11.786	11.861	-0.075	755326	50.0000	21.6	
11	C-20	12.414	12.489	-0.075	752832	50.0000	21.6	
12	C-22	13.591	13.666	-0.075	757922	50.0000	21.7	
13	C-24	14.674	14.749	-0.075	762650	50.0000	22.0	
14	C-26	15.676	15.751	-0.075	749529	50.0000	22.0	
15	C-28	16.609	16.683	-0.074	748477	50.0000	22.2	
16	C-30	17.479	17.553	-0.074	741390	50.0000	23.8	
17	C-36	20.096	20.210	-0.114	757748	50.0000	23.8	
м 33	Extractable TPH				9776602	700.000	284	







Lab Name: Katahdin Analytical Services

 Project : NAVSTA Newport CTO WE40-04 (6030727)
 SDG: WE40-1

 Lab ID : WG135478-5
 Analytical Date: 12/03/13 11:26

Lab File ID :AGL20026.D Instrument ID: GC10
Initial Calibration Date(s): 06/21/13 11:59 06/21/13 14:19 Column ID: A

Compound	RRF/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
3 C-10	50.00000	50.13982	35170	0.010	0.27963	20.00000	Linear
4 C-12	50.00000	50.67777	35529	0.010	1.35554	20.00000	Linear
5 C-14	50.00000	51.24137	35778	0.010	2.48274	20.00000	Linear
6 C-16	50.00000	51.54681	35987	0.010	3.09362	20.00000	Linear
7 C-18	50.00000	51.95222	36073	0.010	3.90445	20.00000	Linear
9 C-19	50.00000	52.41787	35988	0.010	4.83573	20.00000	Linear
11 C-20	50.00000	52.44315	35884	0.010	4.88630	20.00000	Linear
12 C-22	50.00000	52.89337	35986	0.010	5.78674	20.00000	Linear
13 C-24	50.00000	52.88610	36042	0.010	5.77219	20.00000	Linear
14 C-26	50.00000	53.54372	35516	0.010	7.08745	20.00000	Linear
15 C-28	50.00000	54.10751	35556	0.010	8.21502	20.00000	Linear
16 C-30	50.00000	56.73823	35483	0.010	13.47646	20.00000	Linear
17 C-36	50.00000	57.87060	35663	0.010	15.74119	20.00000	Linear
33 Extractable TPH	700	688	33190	0.010	-1.64878	20.00000	Linear
8 O-Terphenyl	20.00000	19.34140	37673	0.010	-3.29302	20.00000	Linear

<sup>\* =</sup> Compound out of QC criteria

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20026.D

Report Date: 03-Dec-2013 12:15

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20026.D

Lab Smp Id: WG135478-5

Inj Date : 03-DEC-2013 11:26

Inst ID: gc10.i

Meth Date: 03-Dec-2013 12:09 acronin Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51 Continuing Calibration Sample

Dil Factor: 1.00000

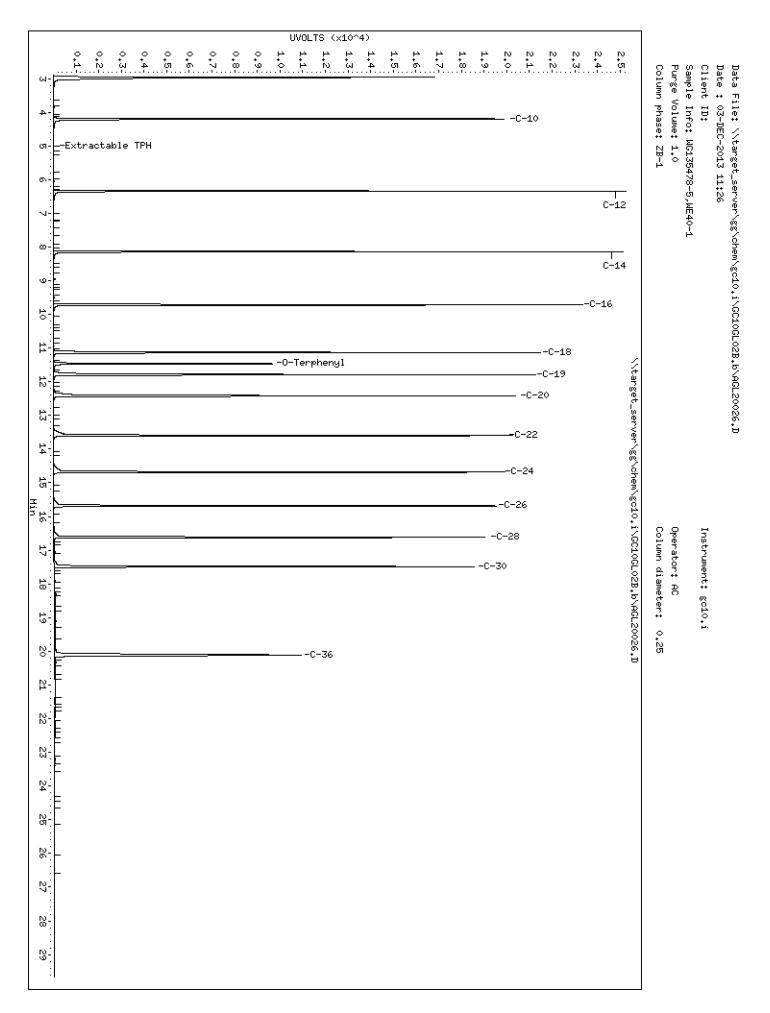
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: T8-D4700

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cond Wariable		Iogal Compound Variabl

					AMOUN	TS	
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
	====	======	======		======	======	========
3 C-10	4.199	4.256	-0.057	1758502	50.0000	50.1	
4 C-12	6.344	6.403	-0.059	1776467	50.0000	50.7	
5 C-14	8.141	8.204	-0.063	1788923	50.0000	51.2	
6 C-16	9.718	9.784	-0.066	1799369	50.0000	51.5	
7 C-18	11.134	11.202	-0.068	1803637	50.0000	52.0	
\$ 8 O-Terphenyl	11.465	11.536	-0.071	753462	20.0000	19.3	
9 C-19	11.792	11.861	-0.069	1799418	50.0000	52.4	
11 C-20	12.420	12.489	-0.069	1794177	50.0000	52.4	
12 C-22	13.597	13.666	-0.069	1799296	50.0000	52.9	
13 C-24	14.681	14.749	-0.068	1802093	50.0000	52.9	
14 C-26	15.684	15.751	-0.067	1775802	50.0000	53.5	
15 C-28	16.616	16.683	-0.067	1777810	50.0000	54.1	
16 C-30	17.487	17.553	-0.066	1774154	50.0000	56.7	
17 C-36	20.112	20.210	-0.098	1783169	50.0000	57.9	
M 33 Extractable TPH				23232817	700.000	688	



### **Raw QC Data Section**





### **Report of Analytical Results**

**Client:** 

**Lab ID:** WG135097-1

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: AGK20367A.

**Sample Date: Received Date:** 

Extract Date: 25-NOV-13

**Extracted By:** JMS

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135097

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: NA

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36		10	mg/Kgdryw	t 1	5	5.0	2.6	3.8
o-Terphenyl		92.4	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20367A.D

Report Date: 03-Dec-2013 12:36

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20367A.D Lab Smp Id: WG135097-1 Client Smp ID: WG135097-Blank

Inj Date : 26-NOV-2013 14:30

Operator : AC Smp Info : WG135097-1,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG135097, WG125981-3, SG9044-1

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date : 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal File: AGF20129a.D Cal Date : 21-JUN-2013 14:19 Als bottle: 51 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

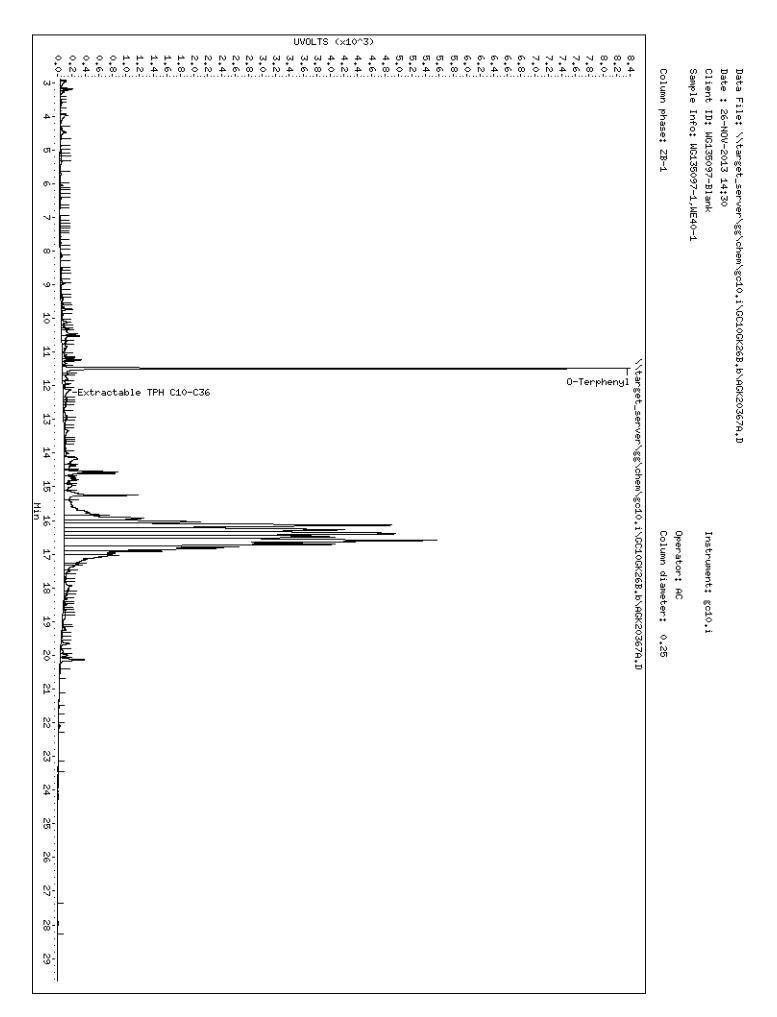
CONCENTRATIONS

				ON-COLUMN	FINAL	
Compounds	RT EX	P RT DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
	==== ===:		======	======	======	========
\$ 8 O-Terphenyl	11.489 11	.536 -0.047	720249	18.4746	0.616	
S 10 Extractable TPH C10-C36	4.157-20.	310	10878727	315.414	10.5(M)	M2

QC Flag Legend

M - Compound response manually integrated.

1:07 pm, Dec 03, 2013







### **Report of Analytical Results**

**Client:** 

**Lab ID:** WG134891-1

Client ID: Method Blank Sample

**Project:** 

**SDG:** WE40-1

Lab File ID: AGK20370.D

**Sample Date: Received Date:** 

Extract Date: 22-NOV-13

**Extracted By:** AM

**Extraction Method:** SW846 3510

Lab Prep Batch: WG134891

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: AQ % Solids: NA

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	U	56.	ug/L	1	75	75.	9.1	56.
o-Terphenyl		84.5	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20370.D

Report Date: 03-Dec-2013 12:36

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20370.D

Lab Smp Id: WG134891-1 Client Smp ID: WG134891-Blank

Inj Date : 26-NOV-2013 16:15

Operator : AC Smp Info : WG134891-1,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG134891, WG125981-3, SG9180-11

Comment :
Method : \\target\_server\gg\chem\gc10.i\\GC10GK26B.b\\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal File: AGF20129a.D Cal Date : 21-JUN-2013 14:19 Als bottle: 51 QC Sample: BLANK

Dil Factor: 1.00000

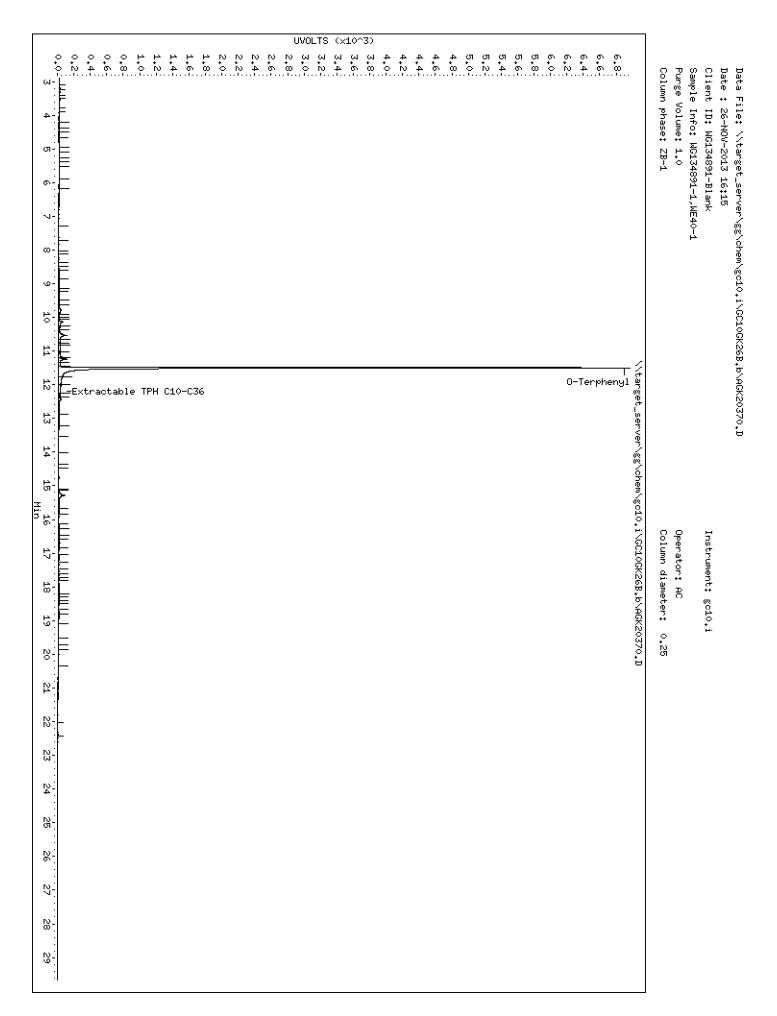
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (L)
O 77 1- 1- 1-		T 1

		CONCENTRATIONS					
					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	( ug/L)	REVIEW CODE
	====		======	======	======	======	========
\$ 8 O-Terphenyl	11.499	11.536	-0.037	661354	16.9377	16.9	







### **Report of Analytical Results**

**Client:** 

**Lab ID:** WG135352-1

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: AGL20007.D

**Sample Date: Received Date:** 

Extract Date: 29-NOV-13

**Extracted By:** JMS

**Extraction Method:** SW846 3550

Lab Prep Batch: WG135352

Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: NA

**Report Date:** 03-DEC-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Extractable TPH C10-C36	U	3.8	mg/Kgdrywt	1	5	5.0	2.6	3.8
o-Terphenyl		60.1	%					

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20007.D

Report Date: 03-Dec-2013 12:44

### Katahdin Analytical Services

Data file : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20007.D

Lab Smp Id: WG135352-1 Client Smp ID: WG135352-Blank

Inj Date : 02-DEC-2013 14:09

Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D Als bottle: 51 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

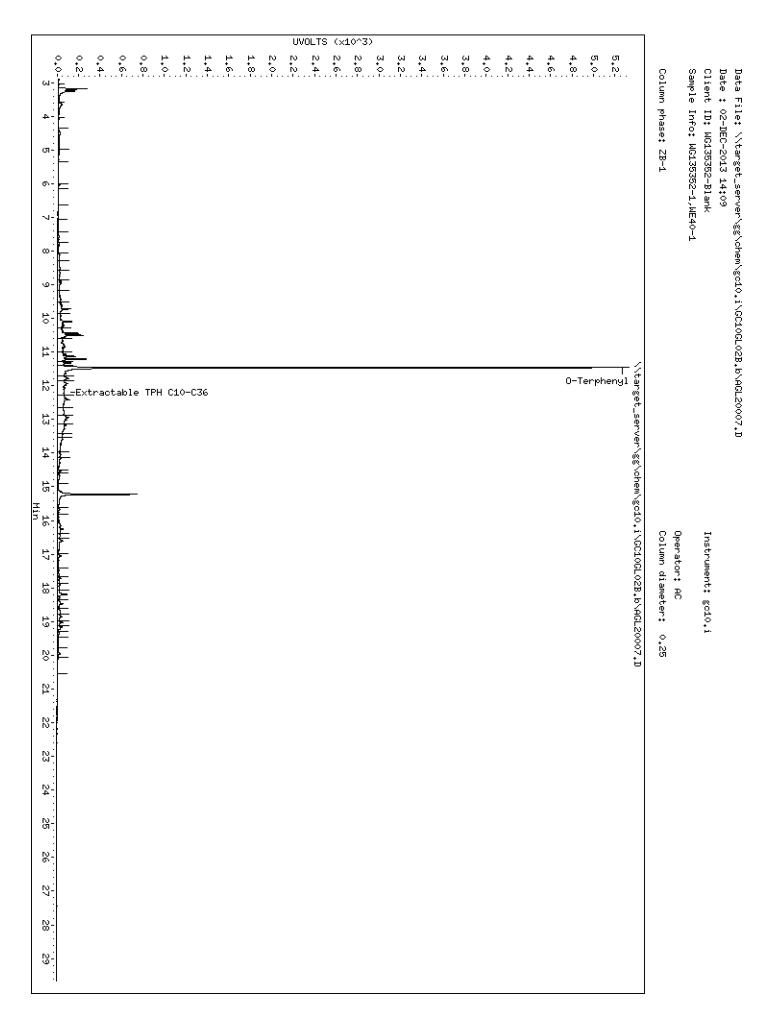
Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Ws	0.03000	Weight of Sample (Kg)
M Cross d Massiable	0.00000	` ,
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
=======================================	====	======	======	======	======	======	========
\$ 8 O-Terphenyl	11.463	11.536	-0.073	473351	12.0314	0.401	







### LCS/LCSD Recovery Report

**LCS ID:** WG135097-2 **LCSD ID:** WG135097-3

Project: SDG: WE40-1

**Report Date:** 03-DEC-13 **LCS File ID:** AGK20368A.

Received Date: Extract Date: 25-NOV-13

Extracted By: JMS

Extraction Method: SW846 3550 Lab Prep Batch: WG135097 LCSD File ID: AGK20369A.D Analysis Date: 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: NA

	Spike	LCS	LCS	LCSD	LCSD	Conc		RPD	
Compound	Amt	Conc	Rec (%)	Conc	Rec (%)	Units	<b>RPD</b> (%)	Limit	Limits
Extractable TPH C10-C36	16.7	13.0	77.8	13.5	80.8	mg/Kgdrywt	4	50	56-124
o-Terphenyl			74.5		81.4				28-101

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20368A.D

Report Date: 03-Dec-2013 12:36

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20368A.D Lab Smp Id: WG135097-2 Client Smp ID: WG135097-LCS

Inj Date : 26-NOV-2013 15:05

Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51 QC Sample: LCS

Dil Factor: 1.00000

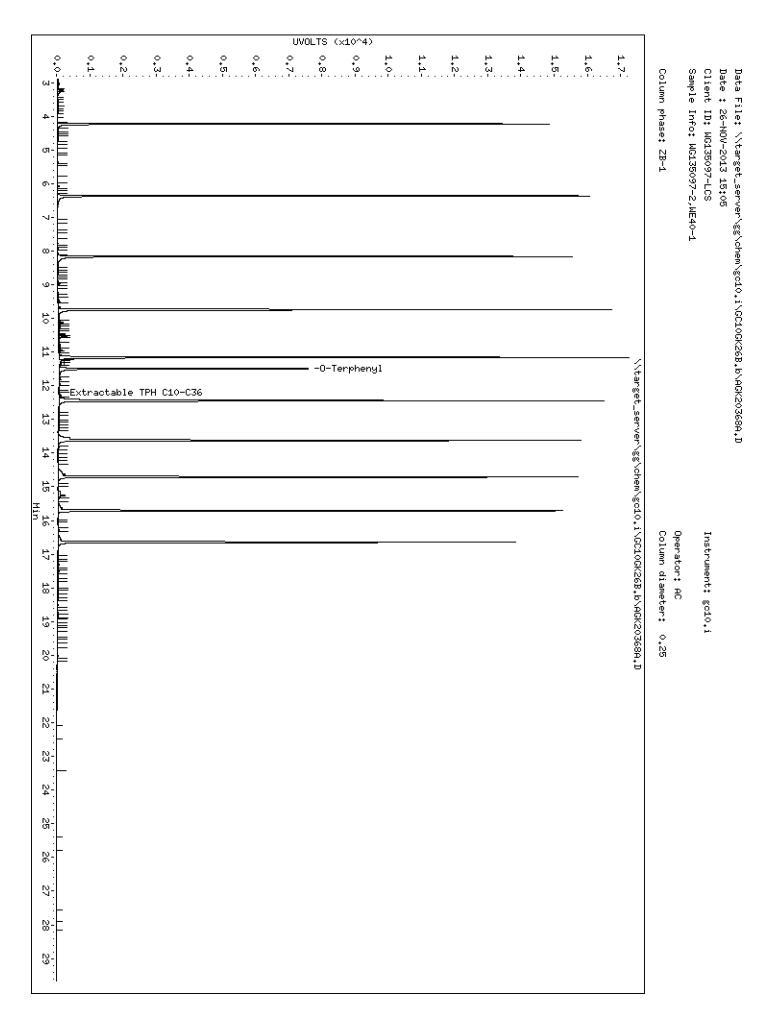
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M		Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

		CONCENTRATIONS							
						ON-COLUMN	FINAL		
C	ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW C	ODE
=		====	======	======	======	======	======	========	
\$	8 O-Terphenyl	11.495	11.536	-0.041	583280	14.9002	0.497		
S	10 Extractable TPH C10-C36	4.157	-20.310		13355733	389.548	13.0		



Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20369A.D

Report Date: 03-Dec-2013 12:36

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20369A.D Lab Smp Id: WG135097-3 Client Smp ID: WG135097-LCSD

Inj Date : 26-NOV-2013 15:40

Operator : AC Smp Info : WG135097-3,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG135097, WG125981-3, SG9044-1

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D QC Sample: LCSD

Als bottle: 51 Dil Factor: 1.00000

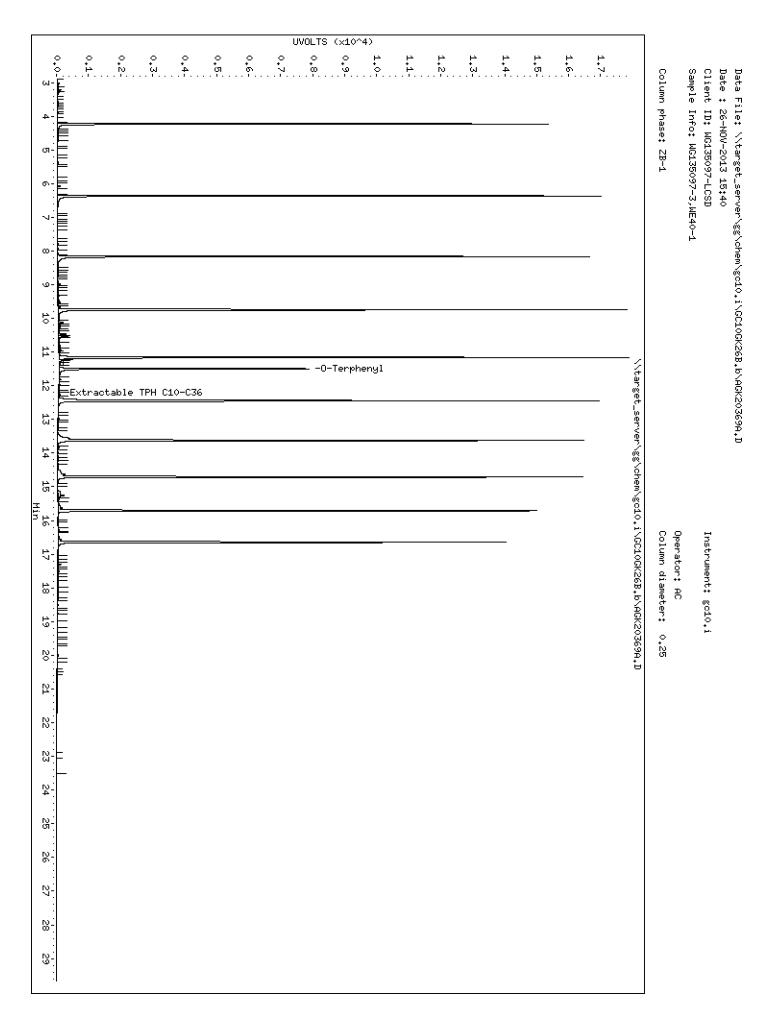
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

		CONCENTRATIONS						
						ON-COLUMN	FINAL	
Co	mpounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW CODE
=======================================		====	======	======	======	======	======	========
\$	8 O-Terphenyl	11.496	11.536	-0.040	637077	16.3041	0.543	
S	10 Extractable TPH C10-C36	4.157-	-20.310		13914859	406.282	13.5	







### LCS/LCSD Recovery Report

**LCS ID:** WG134891-2 **LCSD ID:** WG134891-3

**Project: SDG:** WE40-1

**Report Date:** 03-DEC-13 LCS File ID: AGK20371.D **Received Date:** 

Extract Date: 22-NOV-13 Extracted By: AM

**Extraction Method:** SW846 3510 Lab Prep Batch: WG134891

LCSD File ID: AGK20372.D

**Analysis Date:** 26-NOV-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: AQ % Solids: NA

	Spike	LCS	LCS	LCSD	LCSD	Conc		RPD	
Compound	Amt	Conc	Rec (%)	Conc	Rec (%)	Units	<b>RPD</b> (%)	Limit	Limits
Extractable TPH C10-C36	500.	320.	64.0	403.	80.6	ug/L	23	30	45-118
o-Terphenyl			77.5		89.0				51-103

Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20371.D

Report Date: 03-Dec-2013 12:37

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20371.D Lab Smp Id: WG134891-2Client Smp ID: WG134891-LCS

Inj Date : 26-NOV-2013 16:50

Inst ID: gc10.i

Comment :
Method : \\target\_server\gg\chem\gc10.i\\GC10GK26B.b\\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal File: AGF20129a.D Cal Date : 21-JUN-2013 14:19

Als bottle: 51 Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

QC Sample: LCS

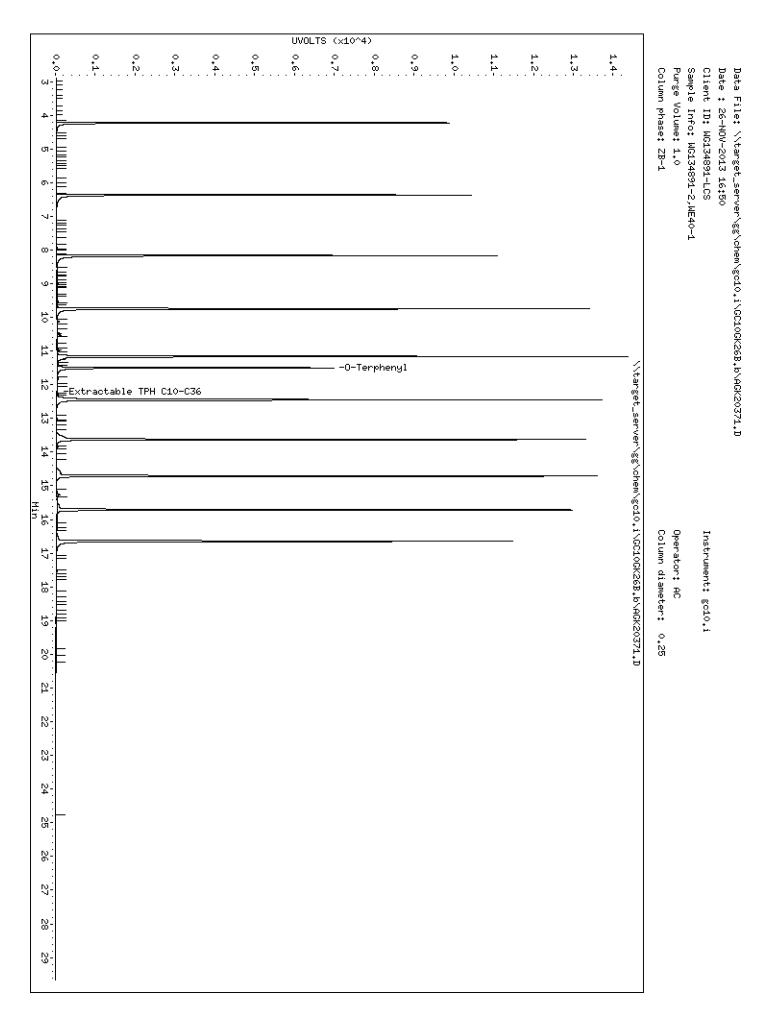
Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	1.000	Sample Volume (Ĺ)
O		T

Cpnd Variable Local Compound Variable

			CONCENTE	RATIONS	
			ON-COLUMN	FINAL	
Compounds	RT EXP RT	DLT RT RESPON	SE (ug/ml)	( ug/L)	REVIEW CODE
=======================================	==== ======	= =======	== ======	======	========
\$ 8 O-Terphenyl	11.498 11.536	-0.038 6064	56 15.5050	15.5	
S 10 Extractable TPH C10-C36	4.157-20.310	110196	83 319.632	320	



Data File: \target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20372.D

Report Date: 03-Dec-2013 12:37

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GK26B.b\AGK20372.D Lab Smp Id: WG134891-3Client Smp ID: WG134891-LCSD

Inj Date : 26-NOV-2013 17:25

Operator : AC Smp Info : WG134891-3,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG134891, WG125981-3, SG9180-11

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GK26B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal File: AGF20129a.D Cal Date : 21-JUN-2013 14:19

Als bottle: 51 Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

QC Sample: LCSD

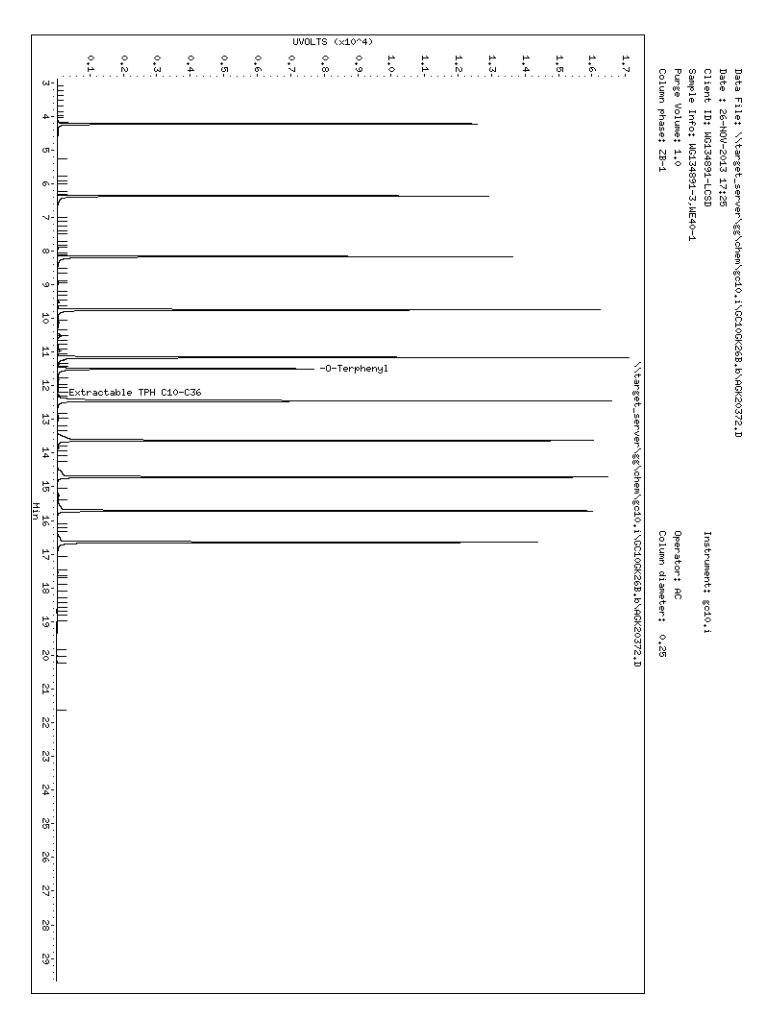
Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Vo)\*1000 \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)

Local Compound Variable Cpnd Variable

				CONCENTRA		
				ON-COLUMN	FINAL	
Compounds	RT EXP RT	DLT RT	RESPONSE	(ug/ml)	( ug/L)	REVIEW CODE
=======================================	==== ======	= ======	======	======	======	========
\$ 8 O-Terphenyl	11.498 11.536	-0.038	695420	17.8267	17.8	
S 10 Extractable TPH C10-C36	4.157-20.310		13802188	402.910	403	







### LCS/LCSD Recovery Report

**LCS ID:** WG135352-2 **LCSD ID:** WG135352-3

Project: SDG: WE40-1

**Report Date:** 03-DEC-13 **LCS File ID:** AGL20008.D

Received Date: Extract Date: 29-NOV-13

**Extracted By:** JMS

Extraction Method: SW846 3550 Lab Prep Batch: WG135352 LCSD File ID: AGL20009.D Analysis Date: 02-DEC-13

Analyst: AC

Analysis Method: SW846 M8100

Matrix: SL % Solids: NA

	Spike	LCS	LCS	LCSD	LCSD	Conc		RPD	
Compound	Amt	Conc	Rec (%)	Conc	Rec (%)	Units	RPD (%)	Limit	Limits
Extractable TPH C10-C36	16.7	11.2	67.1	11.6	69.5	mg/Kgdrywt	4	50	56-124
o-Terphenyl			60.4		67.3				28-101

Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20008.D

Report Date: 03-Dec-2013 12:44

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20008.D Lab Smp Id: WG135352-2 Client Smp ID: WG135352-LCS

Inj Date : 02-DEC-2013 14:44

Inst ID: gc10.i

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D

Als bottle: 51 QC Sample: LCS

Dil Factor: 1.00000

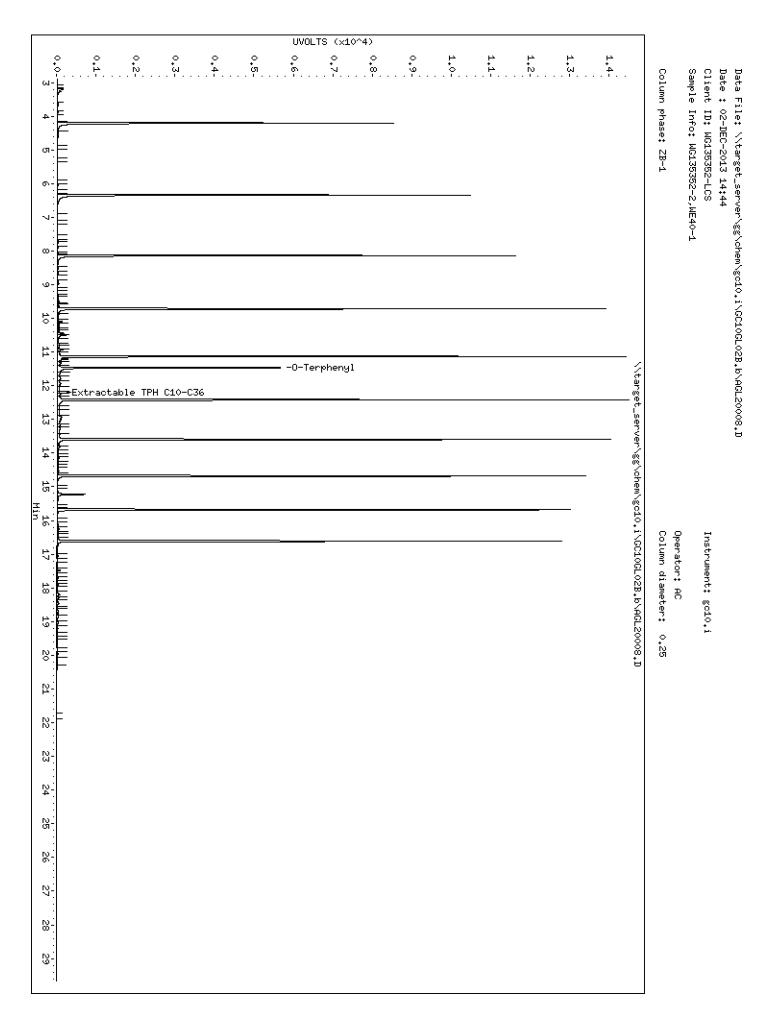
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable	0.00000	Local Compound Variable

						CONCENTRA	ATIONS		
						ON-COLUMN	FINAL		
С	ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW C	CODE
=	=======	====	======	======	======	======	======	========	
\$	8 O-Terphenyl	11.466	11.536	-0.070	475934	12.0988	0.403		
S	10 Extractable TPH C10-C36	4.157	-20.310		11518456	334.560	11.2		



Data File: \target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20009.D

Report Date: 03-Dec-2013 12:44

### Katahdin Analytical Services

Data file: \\target\_server\gg\chem\gc10.i\GC10GL02B.b\AGL20009.D Lab Smp Id: WG135352-3 Client Smp ID: WG135352-LCSD

Inj Date : 02-DEC-2013 15:19

Operator : AC Smp Info : WG135352-3,WE40-1 Inst ID: gc10.i

Misc Info: WG135478, WG135352, WG126180-3, SG9044-1

Comment

Method : \\target\_server\gg\chem\gc10.i\GC10GL02B.b\tph07bwe40.m

Meth Date: 03-Dec-2013 12:27 wstone Quant Type: ESTD Cal Date : 21-JUN-2013 14:19 Cal File: AGF20129a.D QC Sample: LCSD

Als bottle: 51 Dil Factor: 1.00000

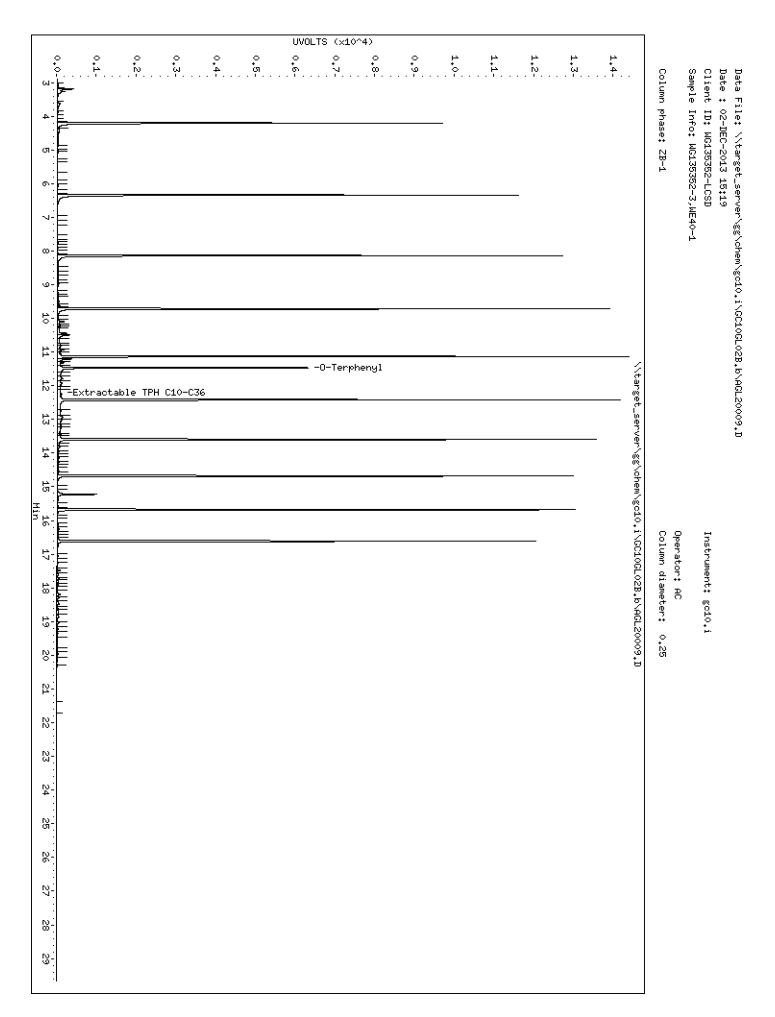
Integrator: HP Genie Compound Sublist: SW8015M-TPH.sub

Target Version: 4.12

Concentration Formula: Amt \* DF \* (Vt/Ws)\*(100/(100-M)) \* CpndVariable

Name	Value	Description
DF Vt Ws M	0.00100 0.03000	Dilution Factor Final Volume (L) Weight of Sample (Kg) Moisture (%)
Cpnd Variable		Local Compound Variable

		CONCENT					ATIONS		
						ON-COLUMN	FINAL		
Co	ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(mg/Kgdrywt)	REVIEW C	CODE
=======================================		====		======	======	======	======	========	
\$	8 O-Terphenyl	11.466	11.536	-0.070	528718	13.4763	0.449		
S	10 Extractable TPH C10-C36	4.157-	-20.310		11953781	347.589	11.6		



### **Logbooks and Supporting Documents**

### KATAHDIN ANALYTICAL SERVICES, INC. ORGANIC EXTRACTIONS LOG - AQUEOUS FUEL OILS

Extraction Method: (check one)	SW846 3510 (SE	P) <i>J</i>	***	SW846 3	520 (CLLE)					·····
Analytical Method: (check one)	SW8016M (DRO)	SW8100M (TPH)	MADEP EPH	/ ME C	EP 4.1.25	FLO PRO	CT ETPH		TX 1005	Other
Spike 10: 6 Cizas		Surrogate ID: 6	C1503	• -	Frac. Surr	ogate ID:		Other	<u> </u>	O.M.
MeCl2 Lot #: D7 30					n-Pentane	Lot #: -		-	ne Lot#::	
NaSO4 Lot# 2796	3 <i>0</i> 03	Filter Paper Lot #	(KD) Fe0079	7315	Nitrogen V	Vater Bath Tem	perature: 37°C	Vial L		
Sample pH checked price	or to extraction?	Yes 47	No	, <del>-</del>		served samples		Viare		
Blank and LCSs adjuste	ink and LCSs adjusted to pH < 2? Yes 47 No					o Start Time: 1036		CLLE Start Time:		
ClLot# 29548				7		Time: 12:20			End Time:	

Date Extracted	Ext. foit.	Sample ID	Init. VVt (g)	Surr Vol. (mL)	Spike Vol. (mL)	Final Vol Pre- Frac. (mL)	Date Conc. Pre- Frac.	Conc. Init. Pre-Frac.	Tray Location	Frac.	Frac. Surr Vol. (mL)	Final Vol. Post- Frac. (mL)	Date Conc Post-Frac.	Tray Location	Canc, Init Post-Frac	Comments
11-22-13	1	WG-134 342-1 	(6000	1	1	mL	((-12-1)	lw/s	28 Er E10							k.265845 R. 2555246
			.													
									-							West 12-13

EX-015 - Revision 2 - 01/08/2013

# THE THE STATE OF STAT

Date Extracted	Ext. Init.	Sample ID	loit. VVt (g)	Surr : Vol. (mL)	Spike Vol. (ml.)	Final Vol Pre- Frac. (mL)	Date Conc. Pre- Frac.	Conc. Init. Pre-Frac.	Tray Location Fatts	Frac. Init.	Frac Surr Vol. (mL)	Final Vol. Post- Frac. (mL)	Date Conc Post-Frac.	Tray Location	Conc. Init Post-Frac.	Comments	
المحداع	M	SC-4057-1 <u>T</u>	1046	l	NR	Inh	11-22-3	LB	M	_					7		_
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		1 34	103co						A3	<u> </u>				/	<u> </u>		-
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		-60	1080						A.	ļ	ļ			<del>/</del>			-
	<u>L</u>	-7.0	(060					11	Al	ļ			_/		-		_
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		56-9157-ZA	1640			1	11	11	as(		/-	<u> </u>			<del> </del>		-
		S64158-2 A	(0 60			1	<del>                                     </del>	44-	146		<u>/</u>	ļ		<u> </u>		centrolige t	-
		569163-20	(060			$\bot \bot$		+	ol	$\perp$	1	<del> </del>	<del>                                     </del>	100 100 E	ارا	R.S. Ev muls	4
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### KATAHDIN ANALYTICAL SERVICES, INC. ORGANIC EXTRACTIONS LOG - SOIL FUEL OILS

Extraction (check of	one)		SW846 3	540 (SO)	)					SI	V846 3	546 (MICRO	))			SW8	46 3550 (S	ONIC.)		
Analytic (check d	al M	lethod:	SW8015M (D	30)	SW810	M (TPI	1	MAI	DEP EPH	<u> </u>	~	EP 4.1.26	-	LO PRO	СТ	ЕТРН	TX 1		Other:	
Spike IE			1295		Surro	gate	ID: C	L 	193	 د ا م	;;	Frac. Su					Other:		100%	
MeCl2 L	ot#		J341		Aceto	ne L	ot#:	<u>~</u>	<del>ا (د ``) ا</del> 19ء ا ا	<i>ون ان</i> 2	2/1	n-Pentar					Hexane Lo	nt #** -		
Filter Pa	per	Lot#(	SON) CUOUT	345	Filter	Pape	r Lot#	(KD)	Pto.	×76 2		<del></del>			279630					
Vial Lot			· · · · · · · · · · · · · · · · · · ·				M					Sonicato	r Horn	e Tunad?	<u>219630</u> €20	کرن	NaSO4 (Powder) Lot #. 27473 ov 2  Nitrogen Water Bath Temperature: \$7 °C			
Prep Sta	art T	ime:	10:00							<u> 1774</u>	200	1			= 00	lo				
			10.00			rep End Time: 13:00					Sox/Micro Start Time:					Sox/Micro End Time:				
Date Extracted		EXT. INIT.	Sample ID	int W (g)	1 1	urr 'ol. nl)	Spike Vol. (ml.)	Fin Vo Pre Fra (ml	31 3- 10.	Date Conc, Pre- Frac.	Conc. Init. Pre-Frac.	Tray Location	Frac,	Frac. Surr Vot. (mL)	Final Vol. Post- Frac. (mL)	Date Conc Post-Fra	Tray c. Locatio	Conc. Init Post-Frac.	Comments	
1-247	þm	y W	1350971	30.0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		NR	Ilmi	را ا	1573	WK	154	7						R25619B	
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1	$\prod$		-4	<u></u>	$\vdash$	/	+	$I^{\dagger}$	+	<del> </del>	+-	a	<del>                                     </del>	+	1-	-	4-			
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X-004 -	-Re	evision	2 - 10/01/2012				B		gra gu							•	push		9000 10000	
		evision	2 – 10/01/2012				]	Final							Final					
	- Re	evision	2 – 10/01/2012	Init. Wt (g)	Surr Vol. (ml.)	18		Final Voi Pre- Frac. (ml.)	Da Coo Pn Fra	te nc.	Conc. Inft. Pre-Frac.	Tray Location	Frac. Init.	Frac. Surr Vol. (mL)	Final Vol. Post- Frac. (ml.)	Date Conc Post-Frac.	Tray	Conc. Init Post-Frac.		
Date racted	Ext. Int.	A. militari		Init.	Vol.	0	/aí. mL)	Voi Pre- Frac. (mL)	Cor		Conc. Inft.		Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Int Post-Frac.		
eate acted	Ext. Int.	A. militari	Sample ID	Init. Wt (g)	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra			Fosses	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Int Post-Frac.		
Date racted	Ext. Int.	A. militari	Sample ID	init. W1 (g) 35.46	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 (9	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Init Post-Frac.		
Pate racted	Ext. Int.	A. militari	Sample ID  0441 £  2 £  -3 £	init. Wt (9) 355.46 34.80	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C10	Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Init Post-Frac.		
eate acted	Ext. Int.	A. militari	Sample ID  OUT: E  T  E  T  E  T  E  T  E	init. W. (9) 35.46 34.3 31.72	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C10 D1	Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Int Post-Frac.		
eate acted	Ext. Int.	A. militari	Sample ID  0447 & 25  -3 & 5  -4 & 5  -5 & 7	init. vv. (g) 355.46 31.13 31.72 30.03	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C10 D1 D2	Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. Intl. Post-Frac.		
eate acted	Ext. Int.	A. militari	Sample 10 044) & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 &	init. W. (9) 35.46 34.3 31.72	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C10 D1	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location	Conc. Init Post-Frac.		
Pate racted	Ext. Int.	A. militari	Sample ID  0447 & 25  -3 & 5  -4 & 5  -5 & 7	init. vv. (g) 355.46 31.13 31.72 30.03	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C10 D1 D2	Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location	Conc. Int Post-frac.		
Date racted	Ext. Int.	A. militari	Sample 10 044) & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 &	init. w. (9) 35:46 34:50 31:72 30:03 30:03 30:04	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C10 D1 D2 03	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray	Conc. int Post-Frac.		
Pate racted	Ext. Int.	A. militari	Sample 10  044) & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 &	init. WM (9) 35:46 34.80 31.72 30.73 30.74	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9	Frac. Init.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location	Cone init Post-Frac.		
Pate racted	Ext.inf.	S69	Sample 10  0441 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 &	init. (9) 35:46 34:80 31:72 30:03 30:97 30:97 30:14	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C10 D1 D2 O3 D4 D5 D6	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments	
eate acted	Ext.inf.	S69	Sample ID  OHH E  2 E  -3 E  -4 E  -7 E  -9 E  SG1 E	init. WM (9) 35:46 34:50 31:72 30:03 30:03 30:04 30:07 30:14 32:27	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9	Fiec.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments	
Pate racted	Ext.inf.	S69	Sample 10 0441 € 2 € -3 € -4 € -7 € -9 € 561 € 2 0	35:46 34:80 31:13 31:72 30:03 36:84 30:97 20:14 32:27 35:41 32:78	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		w/ks	C8 C9 C10 D1 D2 O3 D4 D5 D6	F.Fac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments	
Pate racted	Ext. Inft.	S69	Sample 10  044 6  26  -3 6  -4 6  -7 6  -9 6  501 6  20  3 M	init. WM (9) 35:46 34:50 31:72 30:03 30:03 30:04 30:07 30:14 32:27	Vol. (ml.)	0	/aí. mL)	Voi Pre- Frac. (mL)	Pri Fra		m/8	C8 C9 C10 D1 D2 03 P4 P5 P6 P7 O8 P7	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Correments  Correments  wet, suther feet	
eate acted	Ext. Inft.	S69	Sample 10  044 6  26  -3 6  -4 6  -7 6  -9 6  501 6  20  3 M	35:46  34:50  31:72  30:03  30:04  30:97  30:14  32:27  35:41  37:18  30:36	Vol. (ml.)	0	/ai.mt.)	Vol Pre-Frac. (mL)	Pri Fra		m/8	C8 C9 C10 D1 D2 03 P4 P5 P7 PP1 PP1	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments	
eate acted	Ext. Inft.	S69	Sample 10  0441 E  7 E  7 E  7 E  7 E  7 E  7 E  7 E	36.97 30.93 30.93 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97 30.97	Vol. (ml.)	0	Zoi, mt.)	Vol Pre-Frac. (mL)	Pri Fra		m MS	C8 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Correments  Correments  wet, suther feet	
eate acted	Ext. Inft.	S69 S690	Sample 1D  OHY &  2 E  -3 E  -4 E  -9 E  56 E  20  3 M  80 B	35:46 34:50 31:13 31:12 30:03 30:04 30:07 30:14 32:27 35:41 32:27 35:41 32:36 33:76 33:76 33:76 33:71 32:31	Vol. (ml.)	0	/di.	Vod Pre- Pre- Frac. (mL)	Pri Fra		w/8	C8 C9 C10 D1 D2 03 D4 D5 D6 D7 08 D7 08 D9 V01 C8 C4	Fig.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments  Comments  well, suther feel and the feel and the feel and feel and feel and feel and the feel and t	
aleacled	S Ext. Inft.	S690 S690	Sample 10  0441 E  7 E  7 E  7 E  7 E  7 E  7 E  7 E	36.97 36.97 30.93 30.93 30.97 30	Vol. (ml.)	2	/di.	Vol Pre-Frac. (mL)	Pri Fra	7.)	w/N	C8 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9	Free.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Correments  Correments  wet, suther feet	
ale	S Ext. Inft.	S690 S690	Sample 1D  OHY &  2 E  -3 E  -4 E  -9 E  56 E  20  3 M  80 B	36.74 36.77 36.77 36.77 36.77 36.77 36.77 37.78 36.74 37.78 36.74 37.78 37.78 37.78 37.78 37.78 37.78 37.78 37.78 37.78 37.74 37.78 37.74 37.74 37.74 37.74 37.74 37.74	Vol. (ml.)	0	/di.	Vod Pre- Pre- Frac. (mL)	Pri Fra	7.)	w/N	C8 C9 C10 D1 D2 03 D4 D5 D6 D7 08 D7 08 D9 V01 C8 C4	Frac.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments  Comments  well, suther feel and the feel and the feel and feel and feel and feel and the feel and t	
aleacted	S Ext. Inft.	S690 S690	Sample 10  0441 E  7 E  7 E  7 E  7 E  7 E  7 E  7 E	36.97 36.97 30.93 30.93 30.97 30	Vol. (ml.)	2	/di.	Vod Pre- Pre- Frac. (mL)	Pri Fra	7.)	w/N	C8 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9 C9	Fig.	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments  Comments  wet, such a feel  with another lide  sto	

TOH Re's

### KATAHDIN ANALYTICAL SERVICES, INC. ORGANIC EXTRACTIONS LOG - SOIL FUEL OILS

(chec	k one		SW846 3	40 (SOX					6 3546 (MICF	O)		*	SW8	SW846 3550 (SONIC.)			
	tical	Method:	SW8015M (DF	O)	SW8100	f (TPH)	/ 14/	DEP EPH	.	ME DEP 4.1.25	FLC	D PRO	C	T ETPH		1005	Other:
Spike	ID:	Cu	275		Surrog	jate ID:	60	(31)		Frac. S	urrogate	ID: _			Other:		
MeCl2	2 Lot	# 05	554		Acetor	ne Lot#:		492		n-Pent	ne Lot#	#:			Hexane I	 ::#:	
Filter	Pape	er Lot # (S	SON) (10073	95				fca	シムコ	NaSO4	(Granul	ar) Lot#	2791	3607	NaSO4 (I	Powder)	Lot#: 2797 2002
Vial L		<u>,                                      </u>						Ler Po				Tuned?					ath Temperature:
Prep (	Start	Time: )	31-60			nd Time				1	ro Start	Time:			Sox/Micro		
		· · · · · · · ·								· I					-		
Date Extract	ted	Ext. Init.	Sample (D	ini W (g	t   V	ol. Vo	ike ∖ pi, P iL) Fr	nai Da fol Cor re- Pr ac Fra nL)	te 1c. e-	Tray Location	Frac.	Frac. Surr Vol. (mL)	Final Vol. Post- Frac. (mL)	Date Conc Post-Fra	Tra Locat	Conc. Init	Comments
1) 29	17	In lac	21353521	30;	x [+	<u>~   1/3</u>	<u> </u>	11-24.	17 4	13 KY							2256691
			ر ا	29.9	v	W	~			K							
V	/ \\	1	7.3	30.0	3 V	, ]	,			46						1	
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EX-00	4 — F	Revision	2 10/01/2012														000
ate	!		2 – 10/01/2012	Init.	Surr Vol.	Spike Vol.	Final Vol Pre-	Date Conc.	ic. init.	Tray	rac.	Frac. Surr	Final Vol. Post-	Date Conc	Tray	ic. Init	Comments
ate	4 - F			lnit.	Surr Vol. (mL)	Spike Vol. (mL)	Vol	Date Conc. Pre- Frac.	Conc. Int.	Tray Location FoSSI	를 들는		Vol.	Date Conc Post-Frac.	Tray	Conc. Init Post-Frac.	
ate	Ext. Init.			Init.	Vel.	Vol. (mL)	Vol Pre- Frac.	Conc. Pre-	<del></del>	Tray Location FoSSL	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		
ate acted	Ext. Init.		Sample ID	Init. Wi (g)	Val. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	4	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate acted	Ext. Init.	5690	Sample ID	Init. Wi (g) 30.13	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	48	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample ID  WHIE  A 6	tnit. Wi (g) 30.13 33,41	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 .A4	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample ID  WH G  A G  - Y C	30.46 30.07	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 49 40	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample ID  441 6  3 6  - 4 6  - 5 6	tnit. Wi (g) 30.13 33,41	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 .A4	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate acted	Ext. Init.	S690	Sample ID  WH G  A G  - Y C	30.46 30.07	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 49 40	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample 10  441 E  - 3 &  - 4 &  - 5 &  - 6 &  - 6 &	Init. (v) 30.13 33.451 36.90 36.07	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 49 40 81 62	를 들는	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample 10  441 6  -3 6  -4 6  -5 6  -7 7	20.13 33.401 36.910 36.910 36.97 32.44 36.09	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate acted	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.09 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac. W24-15	LAS	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray		Comments
ate	Ext. Init.	S690	Sample 10  441 6  -3 6  -4 6  -5 6  -7 7	20.13 33.401 36.910 36.910 36.97 32.44 36.09	Vol. (mL)	Vol. (mL)	Vol Pre- Frac. (mL)	Conc. Pre- Frac.	<del></del>	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate acted	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.09 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac. W24-15	LAS	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate acted	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.09 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac. W24-15	LAS	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac.  W26-15	LAS	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate acted	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac. W24-15	LAS	47 48 49 40 81 62 63	를 를	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol.	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol. (mL)	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol. (mL)	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre-Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol. (mL)	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre- Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol. (mL)	Vol. Post- Frac.	Conc	Tray Location		Comments
ate	5 Ex. E.	S690	Sample ID  441 6  -3 6  -4 6  -5 6  -7 6  -7 6  -8 6	20.13 33.69 30.07 30.07 32.44 30.09 34.44 33.30	Val. (mL)	Vol. (mL)	Pro- Frac. (mL)	Conc. Pre-Frac.  W26-15	LAS	47 48 49 40 81 62 63	Frac	Surr Vol. (mL)	Vol. Post- Frac.	Conc	Tray Location		Comments

### KATAHDIN ANALYTICAL SERVICES, INC. - GC LABORATORY RUN LOG

Instru	ment	GC010		Me	thods -	Circle A	pplic	able	Methods	
Amov	nt Inj	ected:		DR	O/TPH-	8015M	od) /	MD	EP 4.1.25)	8100Mod.
Date	Init	Result File	Sample#	Accept Y/N	Meth	nod	Colu	amı	Com	ments
6-12-13	BAC	AGF70/02	WG125295-70L	У	Dro06	A	38	q·	1:5 5	54 100/300
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GC Laboratory Instrument Runlog

Instrument: GC10 (FID)

Method: MADEP EPH

(circle) FL PRO

TNRCC 4005 MEDEP 4.1.25

DRO	-801	5 Mod
TPH -	8015	Mod

CT ETPH

Standard	Standard ID

Amount Injected: 1 uL

Column ID: 408

Date	Init.	Result	Sample	Y/N	Ana	lytical	Metho	od Comments
		File	lD			group		oominens
				٥	VIOII	group		
11-26-13	AC	AGK2036Z		N	1, (313	5478	TPHOT	R
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		364	PHC50	<b>V</b>		~ 1		
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		367	W6135097-1	ý				hitopal
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		371	1 -2	1				
		372,	AV -3	4				
		373		4				
		374	569044-2 *	XN				
		375	-7	<i>Y</i>				
		376	V -8	У				
		377	TB					
	_ _	378	PHCZO	/		-2		C301 TOHrange To
			569044-4	N				<u> </u>
		380	-/					OC 1:2
	-	38)	-302					1:5
	-	382	-502					1:5 DZ 1:10
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11.27-13	+	364	<u> </u>					1:5 DL 1:20
		385	569056-101		**			r.40
<i>\\\\</i>	<i>Y</i>	V 386	1 -204	<u> </u>		<u> </u>	/	1:40 OL 1:50

GC Laboratory Instrument Runlog

Instrument: GC10 (FID)

Method: MADEP EPH (circle) FL PRO

DRO - 8015 Mod TPH - 8015 Mod CT ETPH Standard Standard ID

TNRCC 1005 MEDEP 4.1.25

Amount Injected: 1 uL

Column ID: 408

Amount	.,,	<u> </u>	Column ID. 70 0	<u> </u>			<u> </u>	
Date	Init.	Result	Sample	Y/N		alytical	Method	Comments
		File	ID		L	rkgroup.		
11-27-13	AL		569178-3	У	W613	345397	FLPOIS	
	1	1 413	1-4	14				
11-28-13		414	-5	4				D62T
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		416	TB	y				-
		417	CVZO	Y		-2		
		418	5 69178-9	N				
		4/9	-1/					
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		421	-13					
		422	-14					
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		5	113	У				
		6	PHCSO	7		-3		
		7	WG135352-1	V				
		8		V		,		
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		10	569044-1RE	1				
		1 11	-2RF	V				
		12	-4RE	4				
	V	V 13	-4RE V-7RE	1	L			

GC Laboratory Instrument Runlog

Instrument: GC10 (FID)

Method: MADEP EPH

**FL PRO** (circle)

**TNRCC 1005** 

MEDEP 4.1.25

DRO - 8015 Mod TPH - 8015 Mod

CT ETPH

Standard	Standard ID

Column ID: Amount Injected: 1 uL Date Init. Result Sample Y/N Analytical Method Comments File ID Workgroup AGL20014 569044-8RG 5135478 TPH67B 100/500 - 3REPL 1:5 - | REPL 1:2 TR PHCZO ~4 100/1000 56,9044-5REDL 1:10 100/500 -GREDL 20 1:5 50/1000 21 -GREDL 12-313 1:20 22 169/200 -104 23 1:2 24 FO 25 -5 26

# GASOLINE RANGE ORGANICS DATA

### **QC Summary Section**





### Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: AQ

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. ID	BFB #
IDW-GW-112113	SG9180-11	A	99.0
Method Blank Sample	WG135145-1	A	94.0
Laboratory Control S	WG135145-2	A	83.0
Laboratory Control S	WG135145-3	A	92.0

**QC** Limits

BFB P-BROMOFLUOROBENZENE 79-121

# = Column to be used to flag recovery limits.

\* = Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





### Form 2 System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services Project: NAVSTA Newport CTO WE40-04 Matrix: SL

Lab Code: KAS SDG: WE40-1

Client Sample ID	Lab Sample ID	Col. II	BFB	#
RS-SB1-111413	SG9044-1	A	94.6	
RS-SB2-111513	SG9044-2	A	95.4	
RS-SB3-111513	SG9044-3	A	91.3	
RS-SB4-111813	SG9044-4	A	95.4	
RS-SB5-111813	SG9044-5	A	76.9	*
RS-SB6-111513	SG9044-6	A	87.9	
RS-SB7-111413	SG9044-7	A	92.2	
RS-SB8-111413	SG9044-8	A	93.2	
FD-SO-111813	SG9044-9	A	79.0	*
Method Blank Sample	WG134903-1	A	95.0	
Method Blank Sample	WG134903-1RA	A	87.2	
Laboratory Control S	WG134903-2	A	93.8	
Laboratory Control S	WG134903-3	A	94.6	

**QC Limits** 81-119

BFB P-BROMOFLUOROBENZENE

# = Column to be used to flag recovery limits.

\* = Values outside of contract required QC limits.

D= System Monitoring Compound diluted out.





# Form 4 Method Blank Summary

Lab Name: Katahdin Analytical Services
Project: NAVSTA Newport CTO WE40-04
Lab S

**Project :** NAVSTA Newport CTO WE40-04 **Lab Sample ID :** WG134903-1 **Lab File ID :** 9GK4004A.D **Date Analyzed :** 23-NOV-13

**Instrument ID :** GC09 **Heated Purge :** No

Time Analyzed: 13:43

**SDG:** WE40-1

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG134903-2	9GK4005A	11/23/13	14:38
Laboratory Control S	WG134903-3	9GK4006A	11/23/13	15:32





# Form 4 Method Blank Summary

Lab Name: Katahdin Analytical Services SDG: WE40-1

**Project :** NAVSTA Newport CTO WE40-04 **Lab Sample ID :** WG134903-1RA

Lab File ID: 9GK4022A.DDate Analyzed: 25-NOV-13Instrument ID: GC09Time Analyzed: 10:08

**Heated Purge:** No

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
RS-SB1-111413	SG9044-1	9GK4030.E	11/25/13	18:53
RS-SB2-111513	SG9044-2	9GK4031.E	11/25/13	19:48
RS-SB3-111513	SG9044-3	9GK4033.E	11/25/13	21:37
RS-SB4-111813	SG9044-4	9GK4034.E	11/25/13	22:32
RS-SB5-111813	SG9044-5	9GK4035.E	11/25/13	23:26
RS-SB6-111513	SG9044-6	9GK4036.E	11/26/13	00:21
RS-SB7-111413	SG9044-7	9GK4037.E	11/26/13	01:16
RS-SB8-111413	SG9044-8	9GK4038.E	11/26/13	02:10
FD-SO-111813	SG9044-9	9GK4039.Γ	11/26/13	03:05





# Form 4 Method Blank Summary

**Lab Name :** Katahdin Analytical Services **SDG :** WE40-1 **Project :** NAVSTA Newport CTO WE40-04 **Lab Sample ID :** WG1351

Project : NAVSTA Newport CTO WE40-04Lab Sample ID : WG135145-1Lab File ID : 9GK4044A.DDate Analyzed : 26-NOV-13

Instrument ID: GC09 Time Analyzed: 11:24

**Heated Purge:** No

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG135145-2	9GK4045A	11/26/13	14:25
Laboratory Control S	WG135145-3	9GK4046A	11/26/13	15:19
IDW-GW-112113	SG9180-11	9GK4048.E	11/26/13	17:06





# Form 8 GC Analytical Sequence

Lab Name : Katahdin Analytical ServicesSDG : WE40-1Project : NAVSTA Newport CTO WE40-04Column ID : A

**Instrument ID**: GC09

		Date	Time		
Client Sample ID	Lab Sample ID	Analyzed	Analyzed	BFB	BFB
Initial Calibration	WG127983-2	07/26/13	10:52	31.92	
Initial Calibration	WG127983-3	07/26/13	11:46	31.84	
Initial Calibration	WG127983-4	07/26/13	12:39	31.82	
Initial Calibration	WG127983-5	07/26/13	13:32	31.84	
Initial Calibration	WG127983-6	07/26/13	14:25	31.85	
Initial Calibration	WG127983-1	07/26/13	17:56	31.89	
INDEPENDENT SOURCE	WG127983-7	07/26/13	18:50	31.91	
Continuing Calibrati	WG134903-4	11/23/13	10:15	31.68	
Method Blank Sample	WG134903-1	11/23/13	13:43	31.68	
Laboratory Control S	WG134903-2	11/23/13	14:38	31.67	
Laboratory Control S	WG134903-3	11/23/13	15:32	31.67	
Continuing Calibrati	WG134903-5	11/23/13	23:45	31.68	
Continuing Calibrati	WG134903-6	11/25/13	08:06	31.61	
Method Blank Sample	WG134903-1RA	11/25/13	10:08	31.61	
RS-SB1-111413	SG9044-1	11/25/13	18:53	31.62	
RS-SB2-111513	SG9044-2	11/25/13	19:48	31.63	
Continuing Calibrati	WG134903-7	11/25/13	20:43	31.63	
RS-SB3-111513	SG9044-3	11/25/13	21:37	31.63	
RS-SB4-111813	SG9044-4	11/25/13	22:32	31.63	
RS-SB5-111813	SG9044-5	11/25/13	23:26	31.63	
RS-SB6-111513	SG9044-6	11/26/13	00:21	31.63	
RS-SB7-111413	SG9044-7	11/26/13	01:16	31.63	
RS-SB8-111413	SG9044-8	11/26/13	02:10	31.63	
FD-SO-111813	SG9044-9	11/26/13	03:05	31.63	
Continuing Calibrati	WG134903-8	11/26/13	04:00	31.63	
Continuing Calibrati	WG135145-4	11/26/13	08:35	31.62	
Method Blank Sample	WG135145-1	11/26/13	11:24	31.63	
Laboratory Control S	WG135145-2	11/26/13	14:25	31.63	
Laboratory Control S	WG135145-3	11/26/13	15:19	31.63	
IDW-GW-112113	SG9180-11	11/26/13	17:06	31.63	
Continuing Calibrati	WG135145-5	11/26/13	21:38	31.66	

### **Sample Data Section**

### KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

- U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.
  - Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
- Compound recovery outside of quality control limits.
- D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
- E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
- J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

- J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.
- B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
- C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).
- L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.
- M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.
- N Presumptive evidence of a compound based on a mass spectral library search.
- A Indicates that a tentatively identified compound is a suspected aldol-condensation product.
- P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

# Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
МЗ	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.





### **Report of Analytical Results**

**Client:** AECOM Environment

Lab ID: SG9044-1

**Client ID:** RS-SB1-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4030.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP

Lab Prep Batch: WG134903

**Extraction Method:** SW846 5030B

**Analysis Date:** 25-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 86.

**Report Date:** 29-NOV-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	2.3	mg/Kgdrywt	1	2.5	2.8	2.1	2.3
p-Bromofluorobenzene		94.6	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4030.d

Report Date: 27-Nov-2013 15:21

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4030.d Lab Smp Id: SG9044-1 Client Smp ID: RS-SB1-111413

Inj Date : 25-NOV-2013 18:53

Operator : JLP Smp Info : SG9044-1 Misc Info : WG134903, WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

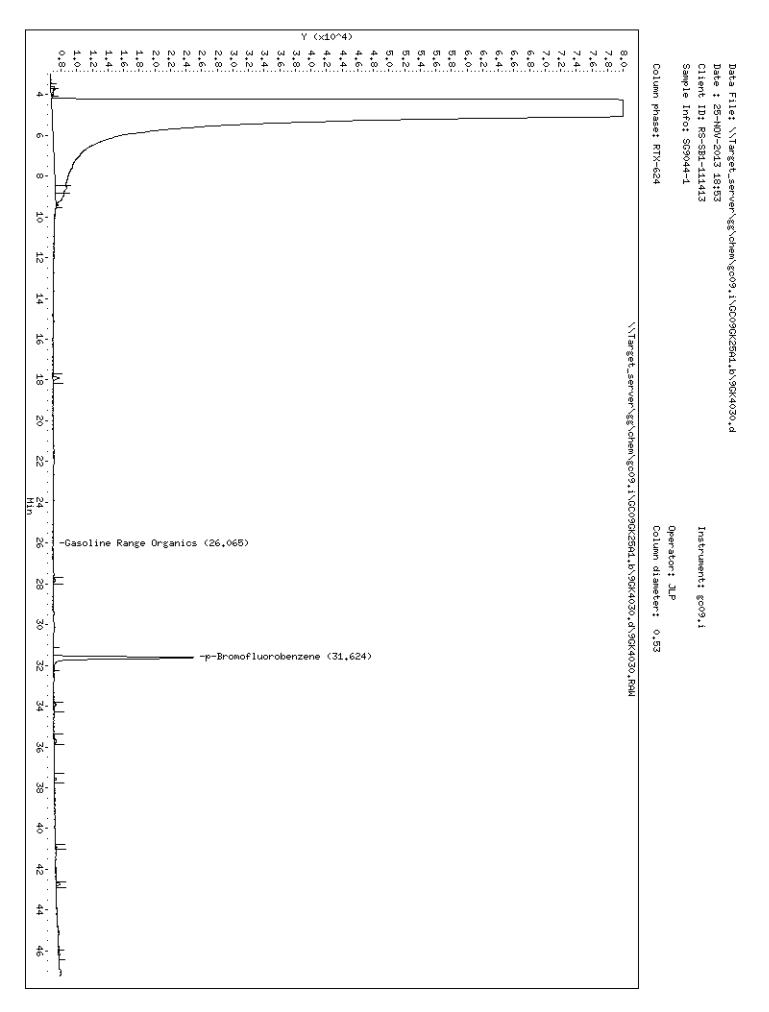
### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws	0.01000	
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	=======
\$ 10 p-Bromofluorobenzene	31.624	31.633	-0.009	131813	18.9335	5.35	







### **Report of Analytical Results**

**Client:** AECOM Environment

Lab ID: SG9044-2

**Client ID:** RS-SB2-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4031.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13 Extract Date: 22-NOV-13

Extracted By: JLP

Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date: 25-NOV-13** 

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 84.

**Report Date:** 29-NOV-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	2.4	mg/Kgdrywt	1	2.5	3.0	2.2	2.4
p-Bromofluorobenzene		95.4	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4031.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4031.d Lab Smp Id: SG9044-2 Client Smp ID: RS-SB2-111513

Inj Date : 25-NOV-2013 19:48

Operator : JLP Smp Info : SG9044-2 Misc Info : WG134903, WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

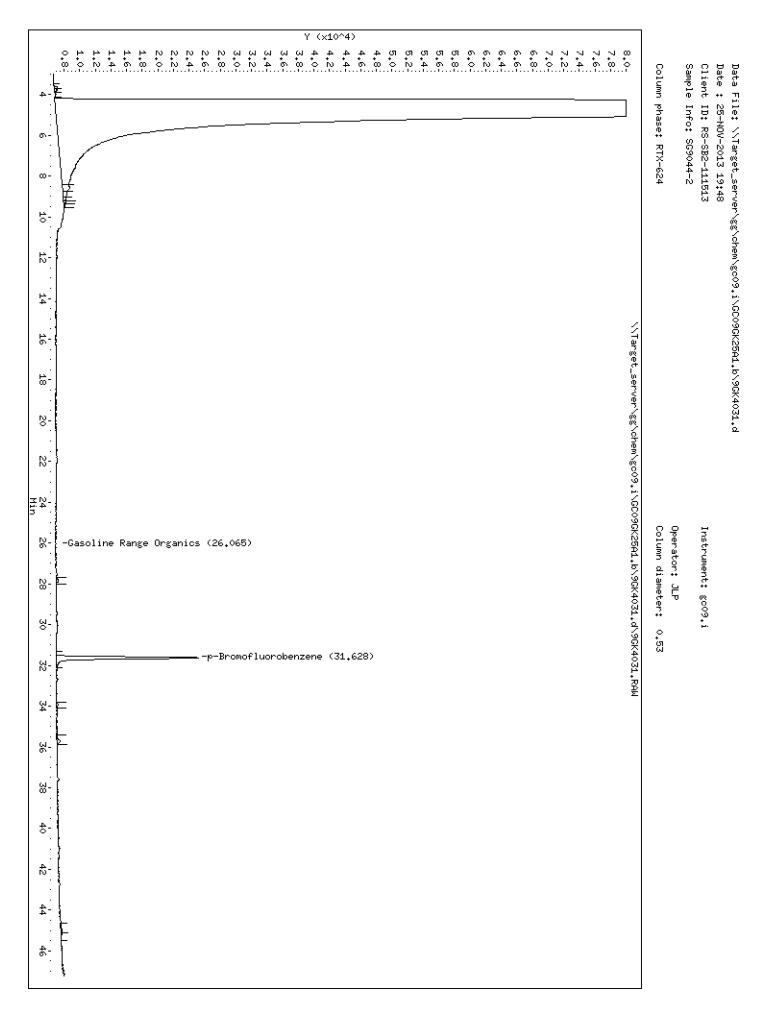
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000 16.198	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable
Cpnd variable		Local Compound variable

CONC	ENTR	TTA	ONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	========
\$ 10 p-Bromofluorobenzene	31.627	31.633	-0.006	132794	19.0744	5.61	







**Client:** AECOM Environment

Lab ID: SG9044-3

**Client ID:** RS-SB3-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4033.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP

**Extraction Method:** SW846 5030B Lab Prep Batch: WG134903

Analyst: JLP

**Analysis Date: 25-NOV-13** 

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units I	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	В	8.4	mg/Kgdrywt	1	2.5	2.4	1.8	2.0
p-Bromofluorobenzene		91.3	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4033.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4033.d Lab Smp Id: SG9044-3 Client Smp ID: RS-SB3-111513

Inj Date : 25-NOV-2013 21:37

Operator : JLP Smp Info : SG9044-3 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

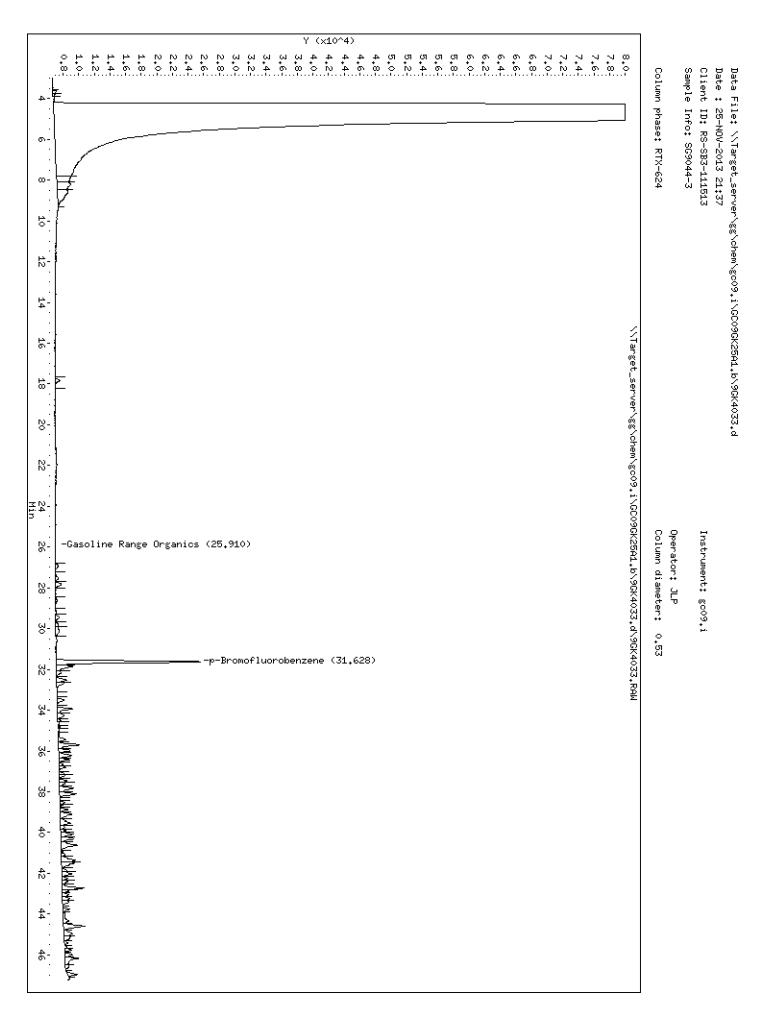
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

		ON-COLUMN	FINAL	
Compounds	RT EXP RT DLT RT	RESPONSE ( ug/L)	(mg/Kgdrywt)	REVIEW CODE
=======================================	==== =======	=======================================	=======================================	======
S 6 Gasoline Range Organics	8.985-42.834	436422 34.1296	8.35	
\$ 10 p-Bromofluorobenzene	31.627 31.633 -0.006	127222 18.2740	4.47	







**Client:** AECOM Environment

**Lab ID:** SG9044-4

**Client ID:** RS-SB4-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4034.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13 Extracted By: JLP

**Extraction Method:** SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 25-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	2.0	mg/Kgdryw	t 1	2.5	2.6	1.9	2.0
p-Bromofluorobenzene		95.4	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4034.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4034.d Lab Smp Id: SG9044-4 Client Smp ID: RS-SB4-111813

Inj Date : 25-NOV-2013 22:32

Operator : JLP Smp Info : SG9044-4 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

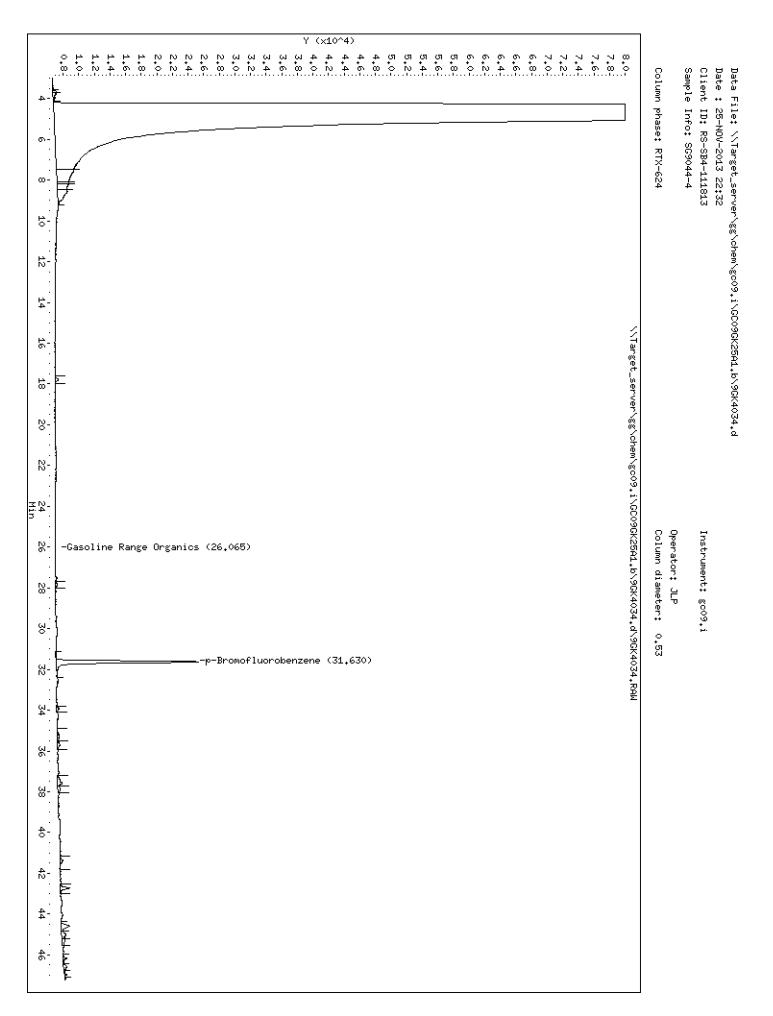
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg)
Cpnd Variable	0.01301	Local Compound Variable

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
	====		======	======	======	======	=======
\$ 10 p-Bromofluorobenzene	31.629	31.633	-0.004	132880	19.0867	4.87	







**Client:** AECOM Environment

Lab ID: SG9044-5

**Client ID:** RS-SB5-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4035.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP
Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 25-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	В	170	mg/Kgdryw	t 1	2.5	2.6	1.9	2.1
p-Bromofluorobenzene	*	76.9	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4035.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4035.d Lab Smp Id: SG9044-5 Client Smp ID: RS-SB5-111813

Inj Date : 25-NOV-2013 23:26

Operator : JLP Smp Info : SG9044-5 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable

CONCENTRATIONS

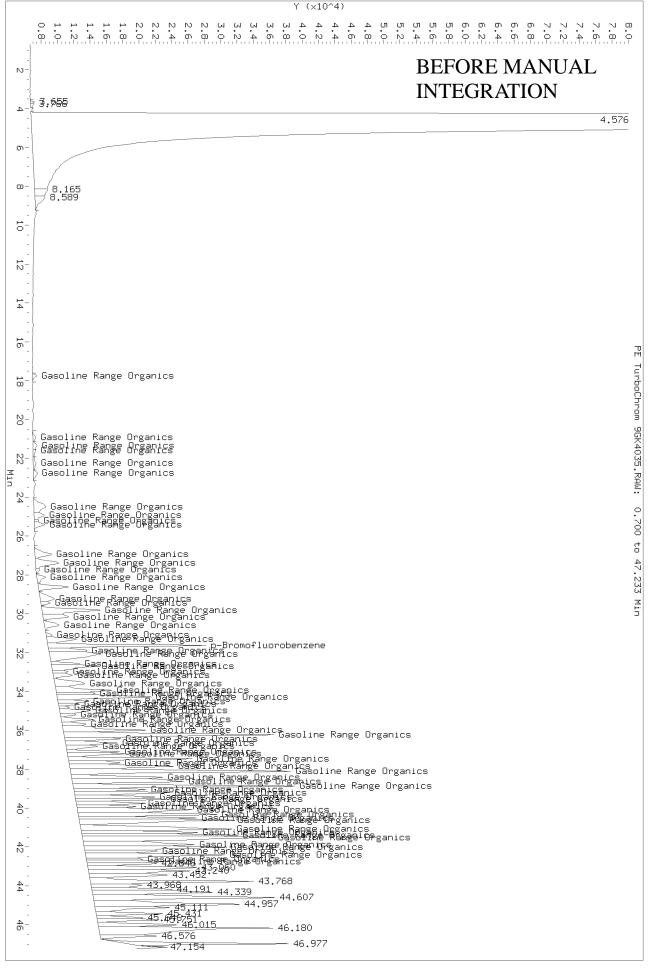
						ON-COLUMN	FINAL	
C	ompounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
=		====	======	======	======	======	======	========
S	6 Gasoline Range Organics	8.985	-42.834		8343661	652.500	170(M)	
\$	10 p-Bromofluorobenzene	31.633	31.633	0.000	107288	15.4107	4.02(RM)	M2

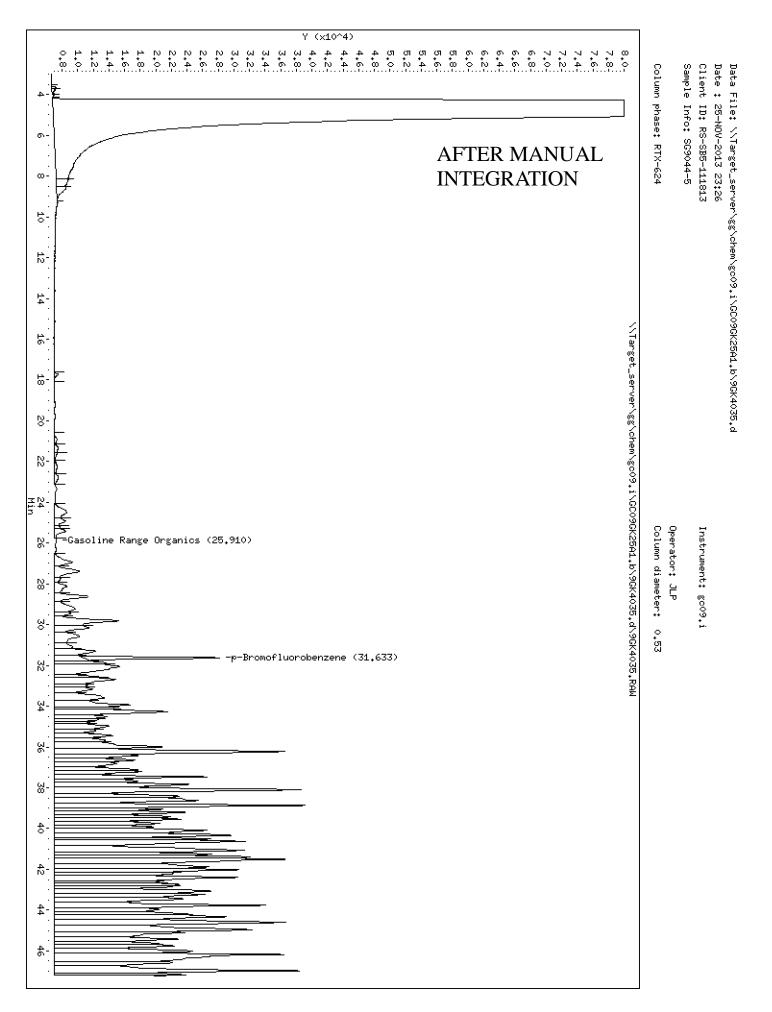
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

M - Compound response manually integrated.

9:16 am, Nov 29, 2013









**Client:** AECOM Environment

Lab ID: SG9044-6

**Client ID:** RS-SB6-111513

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4036.D

Sample Date: 15-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13 Extracted By: JLP

Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 90.

Compound	Qualifier	Result	Units 1	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	В	38.	mg/Kgdrywt	1	2.5	2.6	2.0	2.1
p-Bromofluorobenzene		87.9	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4036.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4036.d Lab Smp Id: SG9044-6 Client Smp ID: RS-SB6-111513

Inj Date : 26-NOV-2013 00:21

Operator : JLP Smp Info : SG9044-6 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws	0.01000 10.435	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

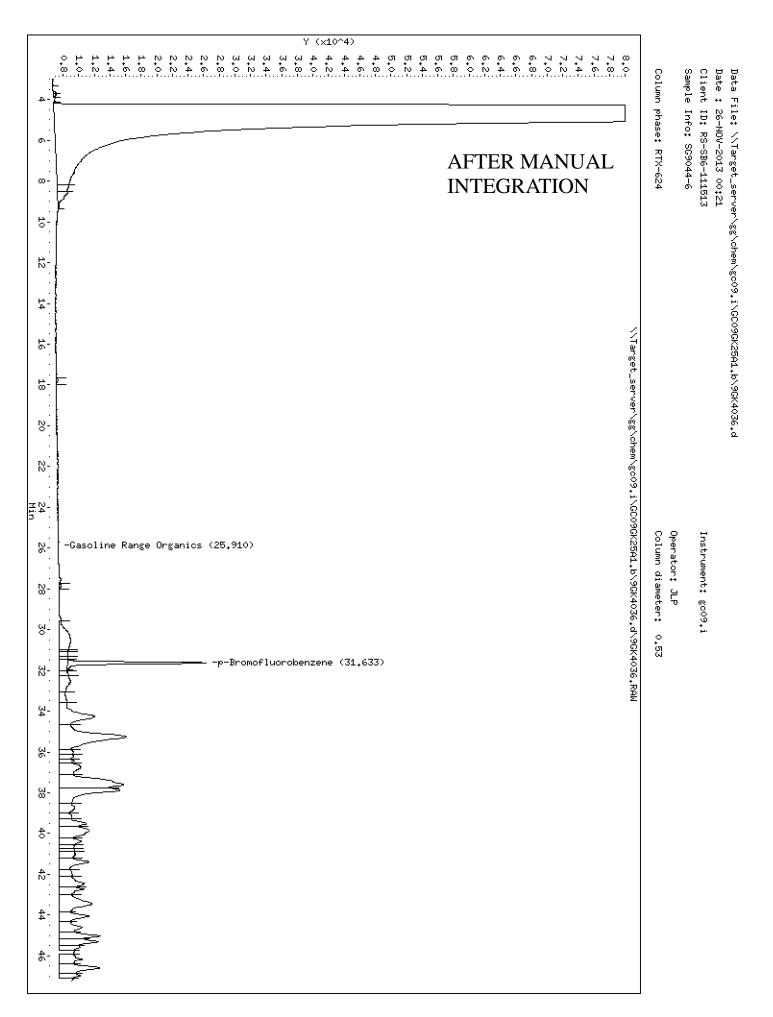
CONCENTRATIONS

						ON-COLUMN	FINAL	
Co	ompounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
==		====	======	======	======	======	======	========
S	6 Gasoline Range Organics	8.985	-42.834		1817578	142.140	37.6(M)	
\$	10 p-Bromofluorobenzene	31.633	31.633	0.000	122505	17.5965	4.65(M)	M2

QC Flag Legend

9:17 am. Nov 29. 2013

M - Compound response manually integrated.







**Client:** AECOM Environment

Lab ID: SG9044-7

**Client ID:** RS-SB7-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4037.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 87.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	В	3.4	mg/Kgdrywt	1 1	2.5	2.7	2.0	2.2
p-Bromofluorobenzene		92.2	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4037.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4037.d Lab Smp Id: SG9044-7 Client Smp ID: RS-SB7-111413

Inj Date : 26-NOV-2013 01:16

Operator : JLP Smp Info : SG9044-7 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

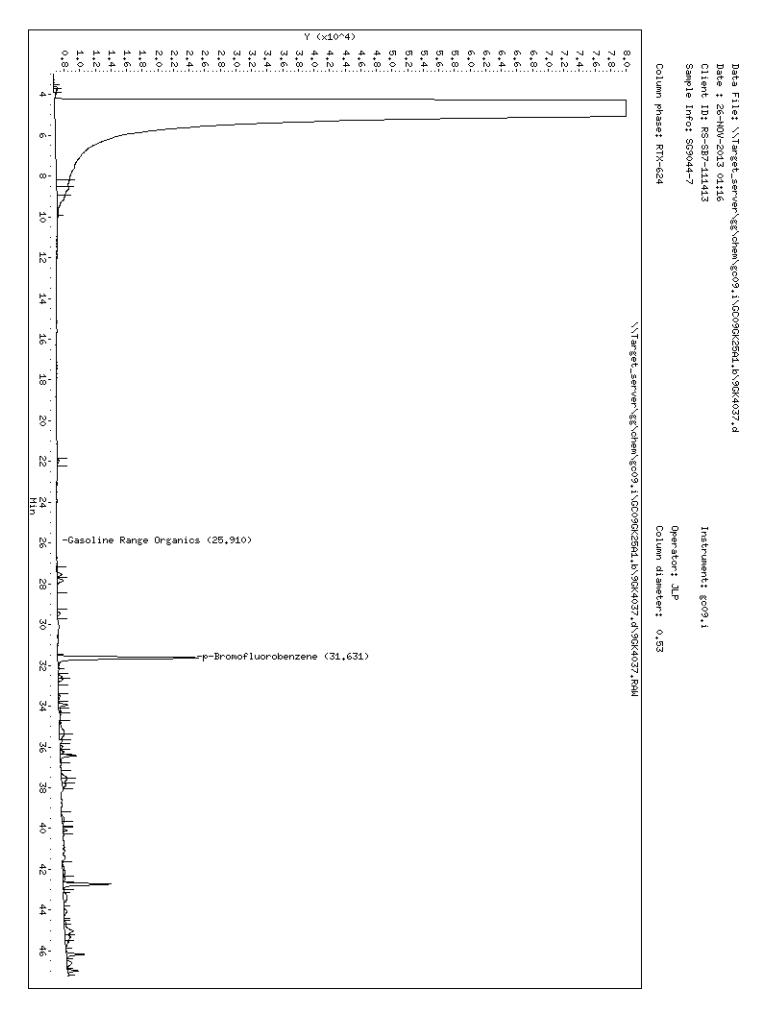
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name Valu	Description
Vt 0.0 M 12	000 Dilution Factor 000 Volume of MeOH (L) 708 Moisture (%) .225 Weight of Sample (Kg) Local Compound Variable

CONCENTR	RICHTA

		ON-COLUMN	FINAL
Compounds	RT EXP RT DLT RT	RESPONSE ( ug/L)	(mg/Kgdrywt) REVIEW CODE
=======================================	==== =======	=======	=======================================
S 6 Gasoline Range Organics	8.985-42.834	163180 12.7612	3.45
\$ 10 p-Bromofluorobenzene	31.631 31.633 -0.002	128474 18.4538	4.98







**Client:** AECOM Environment

Lab ID: SG9044-8

**Client ID:** RS-SB8-111413

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4038.D

Sample Date: 14-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 78.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	2.6	mg/Kgdryw	1 1	2.5	3.2	2.4	2.6
p-Bromofluorobenzene		93.2	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4038.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4038.d Lab Smp Id: SG9044-8 Client Smp ID: RS-SB8-111413

Inj Date : 26-NOV-2013 02:10

Operator : JLP Smp Info : SG9044-8 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

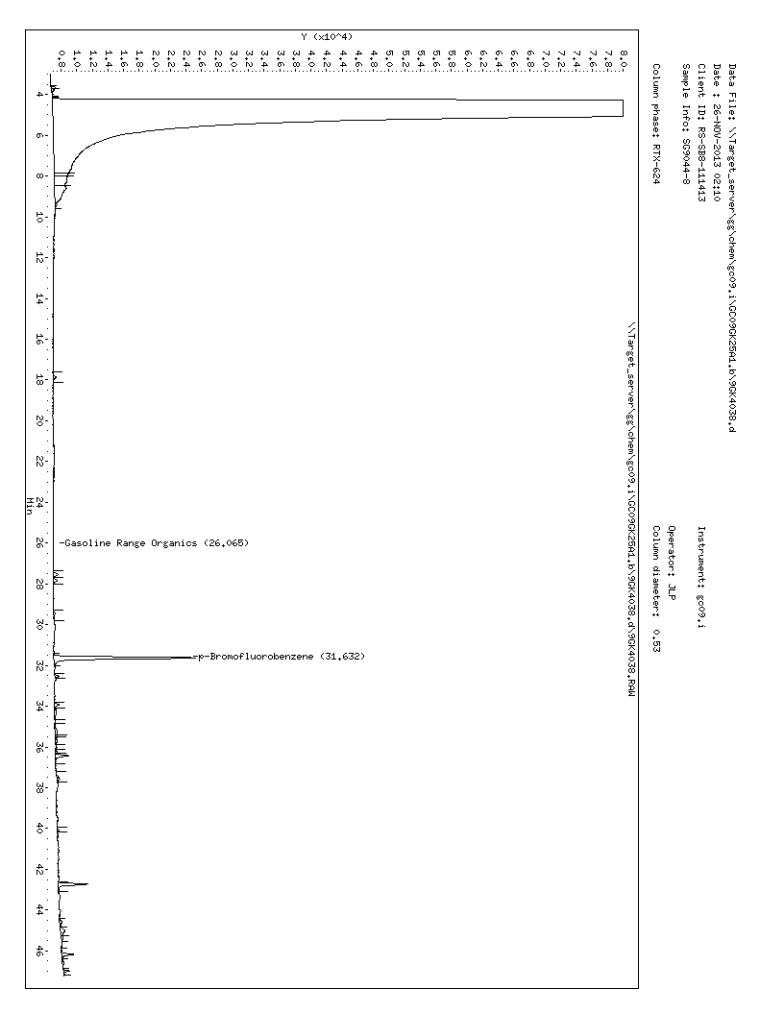
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF		Dilution Factor
Vt		Volume of MeOH (L)
M		Moisture (%)
Ws	0.01272	Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

CONCENTRATIONS

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	=======
\$ 10 p-Bromofluorobenzene	31.632	31.633	-0.001	129834	18.6492	6.02	







**Client:** AECOM Environment

Lab ID: SG9044-9

Client ID: FD-SO-111813

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4039.D

Sample Date: 18-NOV-13 Received Date: 18-NOV-13

Extract Date: 22-NOV-13

Extracted By: JLP

**Extraction Method:** SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: 86.

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	В	140	mg/Kgdrywt	1	2.5	2.6	1.9	2.1
p-Bromofluorobenzene	*	79.0	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4039.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4039.d Lab Smp Id: SG9044-9 Client Smp ID: FD-SO-111813

Inj Date : 26-NOV-2013 03:05

Operator : JLP Smp Info : SG9044-9 Misc Info : WG134903,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable

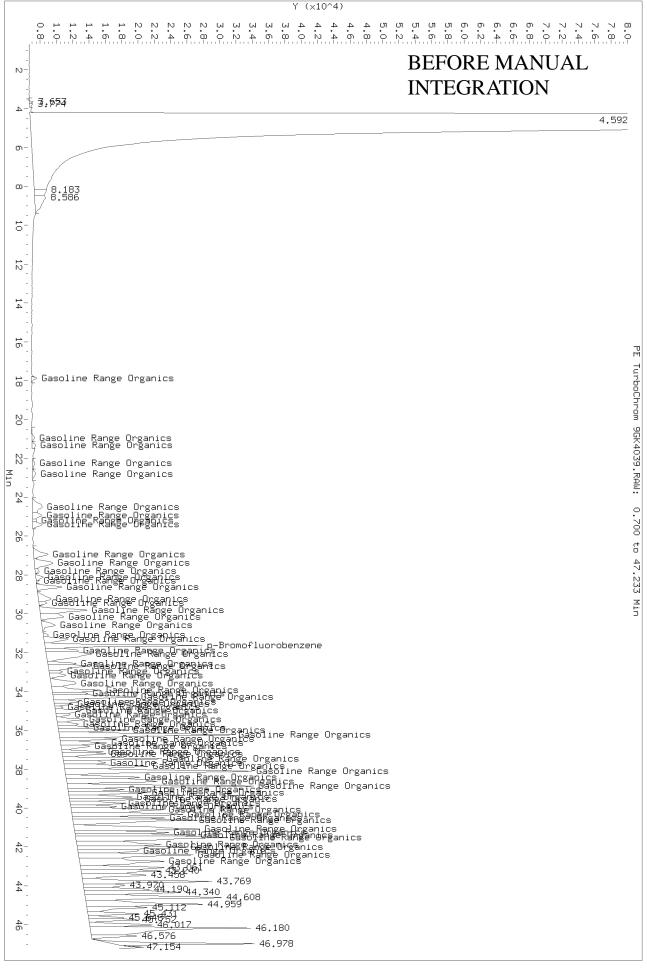
CONCENTRATIONS

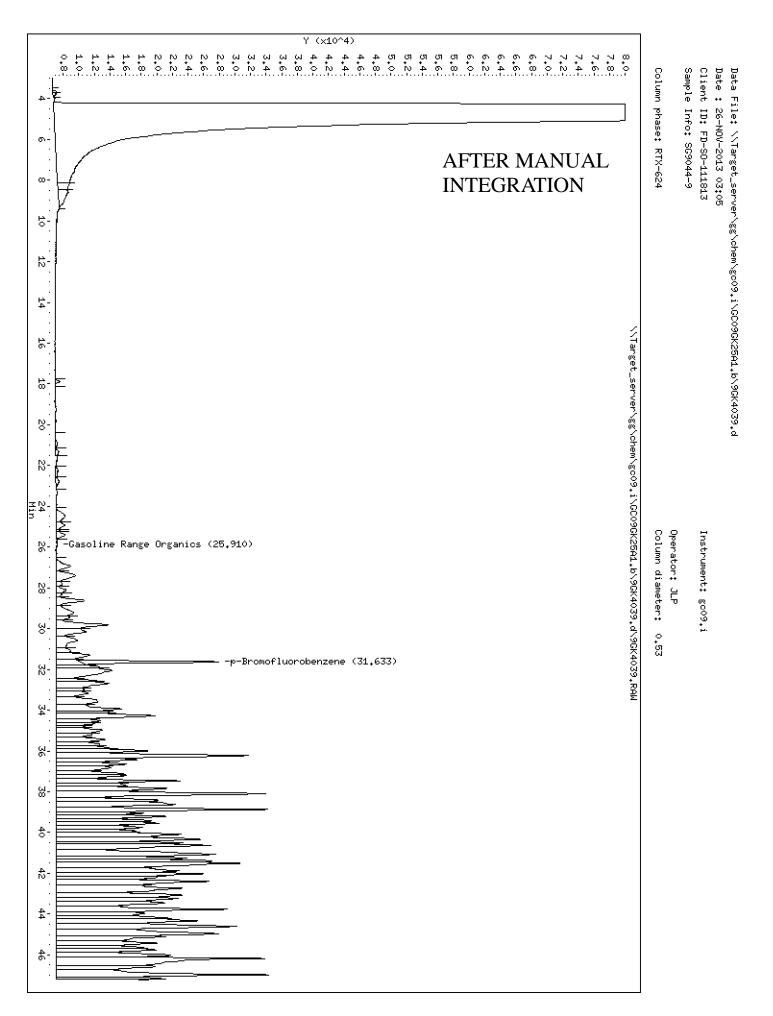
						ON-COLUMN	FINAL	
Co	ompounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
=:		====	======	======	======	======	======	========
S	6 Gasoline Range Organics	8.985	-42.834		7070895	552.966	144(M)	
\$	10 p-Bromofluorobenzene	31.633	31.633	0.000	109881	15.7832	4.11(RM)	M2

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

M - Compound response manually integrated.









**Client:** AECOM Environment

Lab ID: SG9180-11

Client ID: IDW-GW-112113

Project: NAVSTA Newport CTO WE4

**SDG:** WE40-1

Lab File ID: 9GK4048.D

Sample Date: 21-NOV-13 Received Date: 21-NOV-13 Extract Date: 26 NOV 13

Extract Date: 26-NOV-13 Extracted By: JLP

Extraction Method: SW846 5030B

Lab Prep Batch: WG135145

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: AQ % Solids: NA

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics		120	ug/l	1	10	10.	6.7	8.0
p-Bromofluorobenzene		99.0	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4048.d

Report Date: 27-Nov-2013 15:27

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4048.d Lab Smp Id:  $SG918\overline{0}-1\overline{1}$ Client Smp ID: IDW-GW-112113

Inj Date : 26-NOV-2013 17:06

Operator : JLP Smp Info : SG9180-11 Misc Info : WG135145,WG127983-2 Inst ID: gc09.i

Comment : SW846 5030B
Method : \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\GROB017A.m

Meth Date: 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

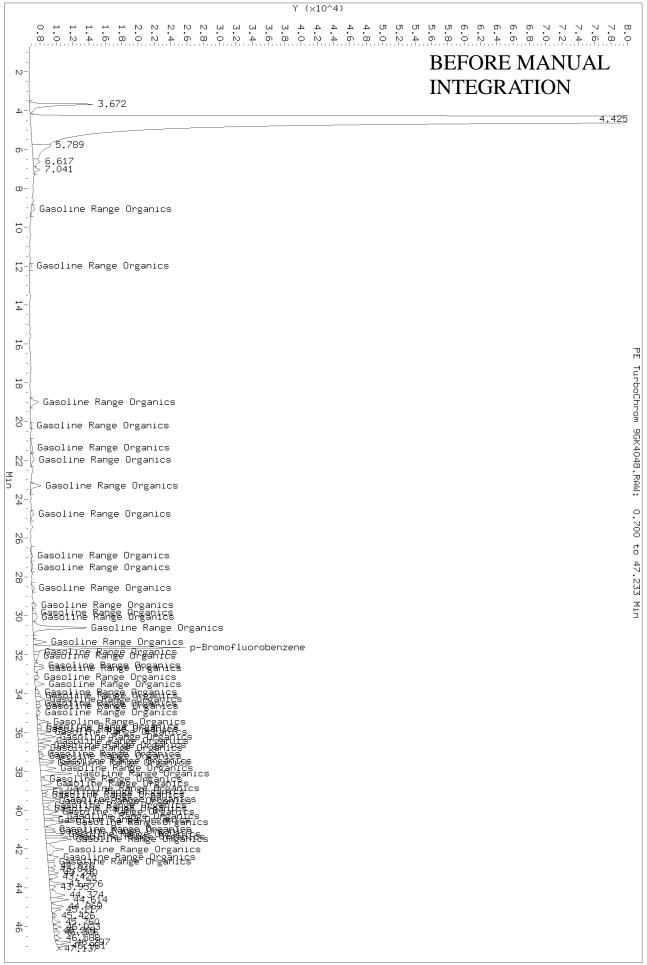
Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

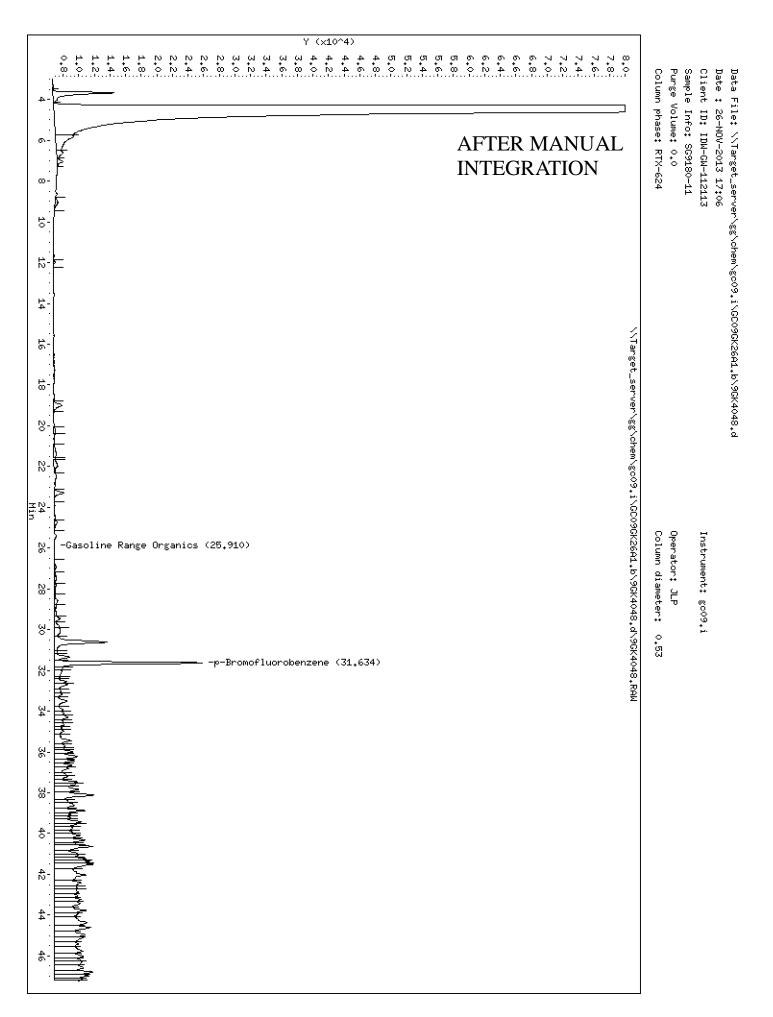
CONCENTRATIONS ON-COLUMN FINAL RT EXP RT DLT RT RESPONSE ( ug/L) Compounds ( ug/L) REVIEW CODE -----====== -----1532555 119.851 S 6 Gasoline Range Organics 119.851 31.634 31.633 0.001 137925 19.8114 8.985-42.834 120(M) M11 \$ 10 p-Bromofluorobenzene 19.8

QC Flag Legend

9:17 am, Nov 29, 2013

M - Compound response manually integrated.





## **Standards Data Section**





# Form 6 Initial Calibration Summary

Lab Name : Katahdin Analytical ServicesSDG: WE40-1Project : NAVSTA Newport CTO WE40-04Instrument ID: GC09Lab File IDs : 9GG2130.d 9GG2123.d 9GG2124.dColumn ID: A

9GG2125.d 9GG2125.d 9GG2127.d **Calibration Date(s):** 26-JUL-13 09:58

26-JUL-13 17:56

	10.0000	100.0000	250.0000	500.0000	1000.0000	2000.0000	New	b	m1	m2	%RSD	Max	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Crv					%RSD	
Gasoline Range Organic	12176	12675	12913	12768	12910	13282	AVG		12787		2.84495	20.00000	М
Methyl tert-butyl ether	6010	8181	8380	7569	7477	8149	AVG		7628		11.40841	20.00000	О
Benzene	15826	15860	16448	16739	17015	17326	AVG		16536		3.69285	20.00000	О
Toluene	15470	16041	16286	16166	16555	16718	AVG		16206		2.70556	20.00000	О
Ethylbenzene	14185	14823	15058	15019	15114	15298	AVG		14916		2.61143	20.00000	О
m+p-Xylenes	14785	15435	15552	15559	15638	15874	AVG		15474		2.37846	20.00000	О
o-Xylene	16358	14889	14896	15443	15410	15788	AVG		15464		3.61301	20.00000	О
1,2,4-trimethylbenzene	11095	12102	12347	12071	12262	12757	AVG		12106		4.56871	20.00000	О
1,3,5-trimethylbenzene	9784	10620	10743	10552	10765	11352	AVG		10636		4.74665	20.00000	О
Naphthalene	3461	3359	3870	3000	3223	3680	AVG		3432		9.12376	20.00000	О
p-Bromofluorobenzene	6432	6935	7300	7023	6937	7145	AVG		6962		4.23260	20.00000	

Legend: O = Kept Original Curve

Y = Failed Minimum RF W = Failed %RSD Value Data File: \\Target\_server\gg\chem\gc09.i\GC09GG26A1.b\9GG2131.d

Report Date: 02-Dec-2013 08:09

#### Katahdin Analytical Services

#### RECOVERY REPORT

Client Name: Client SDG: SDGa02312

Sample Matrix: LIQUID Fraction: GRO

Lab Smp Id: WG127983-7

Level: LOW Operator: EKC

Data Type: GC DATA SpikeList File: ind.spk SampleType: IND CHECK

Quant Type: ESTD

Sublist File: cv.sub
Method File: \Target\_server\gg\chem\gc09.i\GC09GG26A1.b\GROB017A.m
Misc Info: WG127983,WG127983-2,SG5385-1

3 Benzene     10.0     9.33     93.30     80-12       5 Toluene     10.0     9.25     92.50     80-12       7 Ethylbenzene     10.0     9.42     94.20     80-12       8 m+p-Xylenes     20.0     18.7     93.50     80-12       9 o-Xylene     10.0     9.28     92.80     80-12	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
12 1,3,5-trimethylben 10.0 9.30 93.00 80-12	3 Benzene 5 Toluene 7 Ethylbenzene 8 m+p-Xylenes 9 o-Xylene 11 1,2,4-trimethylben 12 1,3,5-trimethylben	10.0 10.0 10.0 20.0 10.0 10.0	9.33 9.25 9.42 18.7 9.28 9.44 9.30	93.30 92.50 94.20 93.50 92.80 94.40 93.00	80-120 80-120 80-120 80-120 80-120 80-120 80-120 80-120 80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 10 p-Bromofluorobenze	20.0	20.0	100.00	81-119

Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2123.d

Report Date: 22-Aug-2013 11:46

#### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2123.d

Lab Smp Id: WG127983-2

Inj Date : 26-JUL-2013 10:52

Operator : EKC Smp Info : WG127983-2 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date: 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 10:52 Cal File: 9GG2123.d

Als bottle: 1 Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

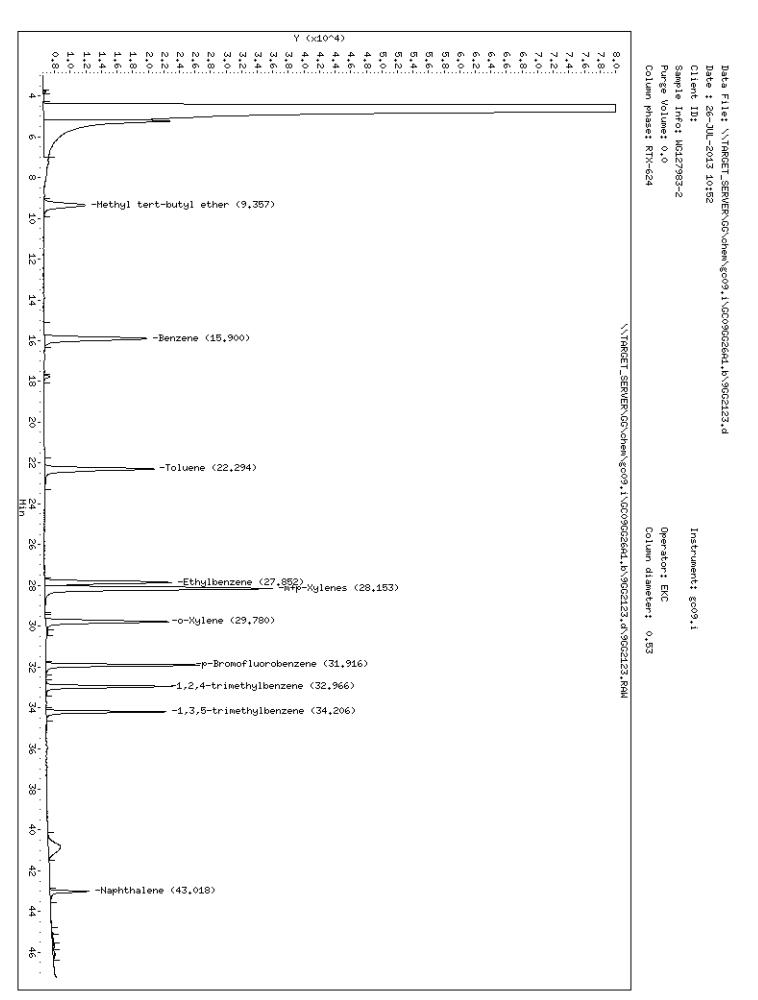
Target Version: 4.12 Processing Host: V200T3

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	0.00500	Sample Volume (L)
Cond Variable		I agal Compound Variable

Local Compound Variable Cpnd Variable

							AMOUN'	rs	
							CAL-AMT	ON-COL	
Cor	npc	unds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:		=======================================	====	======	======	======	======	======	========
M	1	Gasoline Range Organic				1267453	100.000	100	
	2	Methyl tert-butyl ether	9.356	9.357	-0.001	81806	10.0000	10.0	
	3	Benzene	15.900	15.900	0.000	158596	10.0000	10.0	
	5	Toluene	22.294	22.294	0.000	160413	10.0000	10.0	
	7	Ethylbenzene	27.851	27.852	-0.001	148233	10.0000	10.0	
	8	m+p-Xylenes	28.152	28.153	-0.001	308698	20.0000	20.0	
	9	o-Xylene	29.779	29.780	-0.001	148894	10.0000	10.0	
\$	10	p-Bromofluorobenzene	31.915	31.916	-0.001	138709	20.0000	20.0	
	11	1,2,4-trimethylbenzene	32.966	32.966	0.000	121019	10.0000	10.0	
	12	1,3,5-trimethylbenzene	34.205	34.206	-0.001	106204	10.0000	10.0	
	13	Naphthalene	43.017	43.018	-0.001	33590	10.0000	10.0	



Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2124.d

Report Date: 22-Aug-2013 11:46

#### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\\9GG2124.d

Lab Smp Id: WG127983-3

Inj Date : 26-JUL-2013 11:46

Operator : EKC Smp Info : WG127983-3 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date: 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 11:46 Cal File: 9GG2124.d

Als bottle: 1 Calibration Sample, Level: 3

Dil Factor: 1.00000 Integrator: HP Genie Compound Sublist: cv.sub

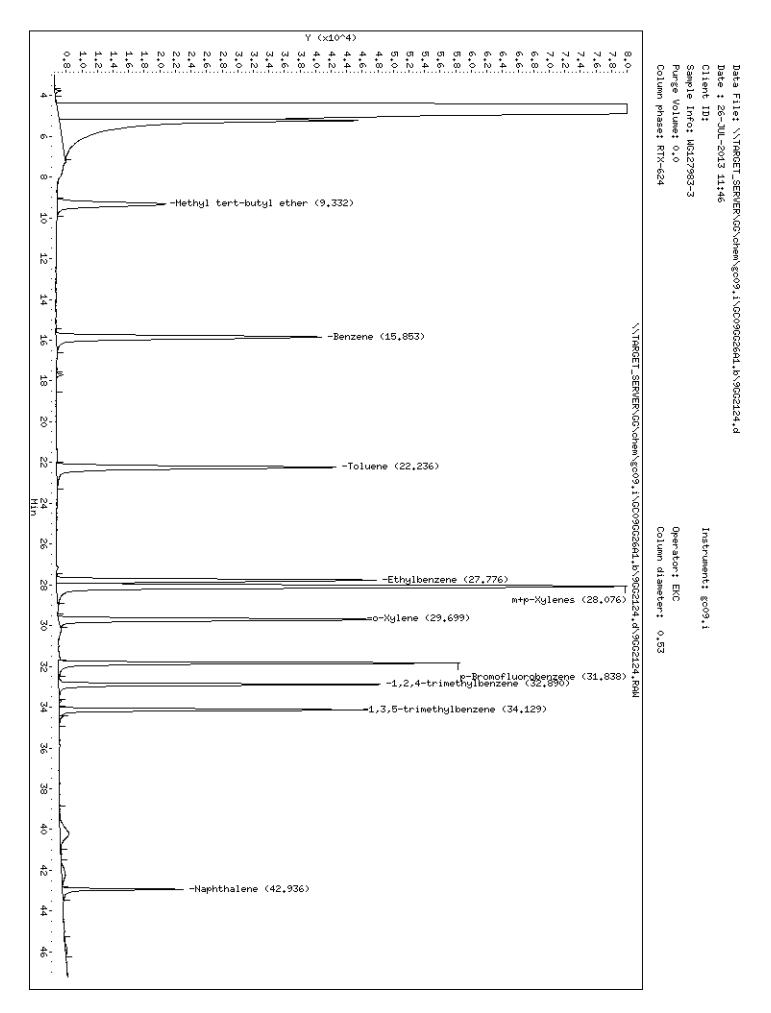
Target Version: 4.12 Processing Host: V200T3

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt	0.00500	Dilution Factor Final Volume (L)
Vo Cond Variable	0.00500	Sample Volume (L)

Local Compound Variable Cpnd Variable

							AMOUN	rs	
							CAL-AMT	ON-COL	
Compounds		RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE	
==:		=======================================	====	======	======	======	======	======	========
M	1	Gasoline Range Organic				3228340	250.000	253	
	2	Methyl tert-butyl ether	9.332	9.357	-0.025	209497	25.0000	25.3	
	3	Benzene	15.852	15.900	-0.048	411210	25.0000	25.4	
	5	Toluene	22.235	22.294	-0.059	407161	25.0000	25.2	
	7	Ethylbenzene	27.775	27.852	-0.077	376453	25.0000	25.2	
	8	m+p-Xylenes	28.076	28.153	-0.077	777614	50.0000	50.2	
	9	o-Xylene	29.699	29.780	-0.081	372395	25.0000	25.0	
\$	10	p-Bromofluorobenzene	31.837	31.916	-0.079	364986	50.0000	51.3	
	11	1,2,4-trimethylbenzene	32.890	32.966	-0.076	308679	25.0000	25.2	
	12	1,3,5-trimethylbenzene	34.128	34.206	-0.078	268578	25.0000	25.1	
	13	Naphthalene	42.936	43.018	-0.082	96753	25.0000	26.8	



Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2125.d

Report Date: 22-Aug-2013 11:46

### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\\9GG2125.d

Lab Smp Id: WG127983-4

Inj Date : 26-JUL-2013 12:39

Operator : EKC Smp Info : WG127983-4 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date: 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 12:39 Cal File: 9GG2125.d

Als bottle: 1 Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

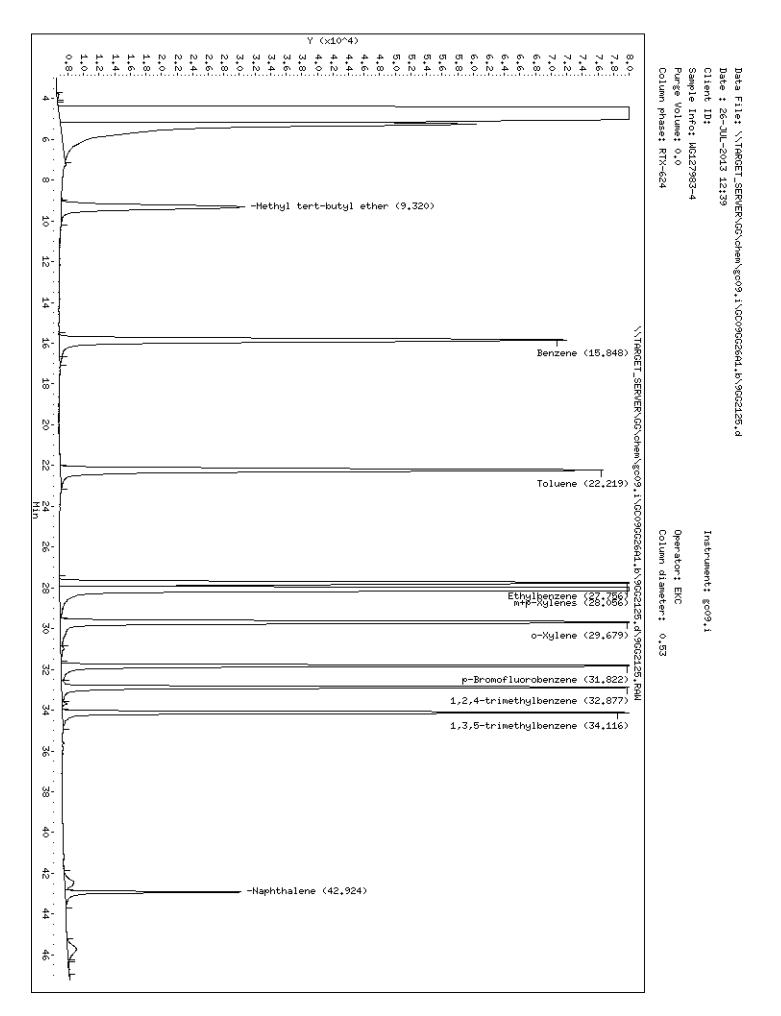
Target Version: 4.12 Processing Host: V200T3

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt	0.00500	Dilution Factor Final Volume (L)
Vo Cond Variable	0.00500	Sample Volume (L)

Local Compound Variable Cpnd Variable

		AMOUNTS						
						CAL-AMT	ON-COL	
Co	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==		====	======	======	======	======	======	========
M	1 Gasoline Range Organic				6383811	500.000	493	
	2 Methyl tert-butyl ether	9.320	9.357	-0.037	378455	50.0000	47.0	
	3 Benzene	15.847	15.900	-0.053	836968	50.0000	51.2	
	5 Toluene	22.218	22.294	-0.076	808321	50.0000	50.0	
	7 Ethylbenzene	27.755	27.852	-0.097	750944	50.0000	50.2	
	8 m+p-Xylenes	28.055	28.153	-0.098	1555869	100.000	100	
	9 o-Xylene	29.679	29.780	-0.101	772132	50.0000	51.2	
\$	10 p-Bromofluorobenzene	31.822	31.916	-0.094	702275	100.000	99.1	
	11 1,2,4-trimethylbenzene	32.876	32.966	-0.090	603539	50.0000	49.6	
	12 1,3,5-trimethylbenzene	34.116	34.206	-0.090	527596	50.0000	49.6	
	13 Naphthalene	42.924	43.018	-0.094	149987	50.0000	44.0	



Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2126.d

Report Date: 22-Aug-2013 11:46

### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\\9GG2126.d

Lab Smp Id: WG127983-5

Inj Date : 26-JUL-2013 13:32

Operator : EKC Smp Info : WG127983-5 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date: 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 13:32 Cal File: 9GG2126.d

Als bottle: 1 Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

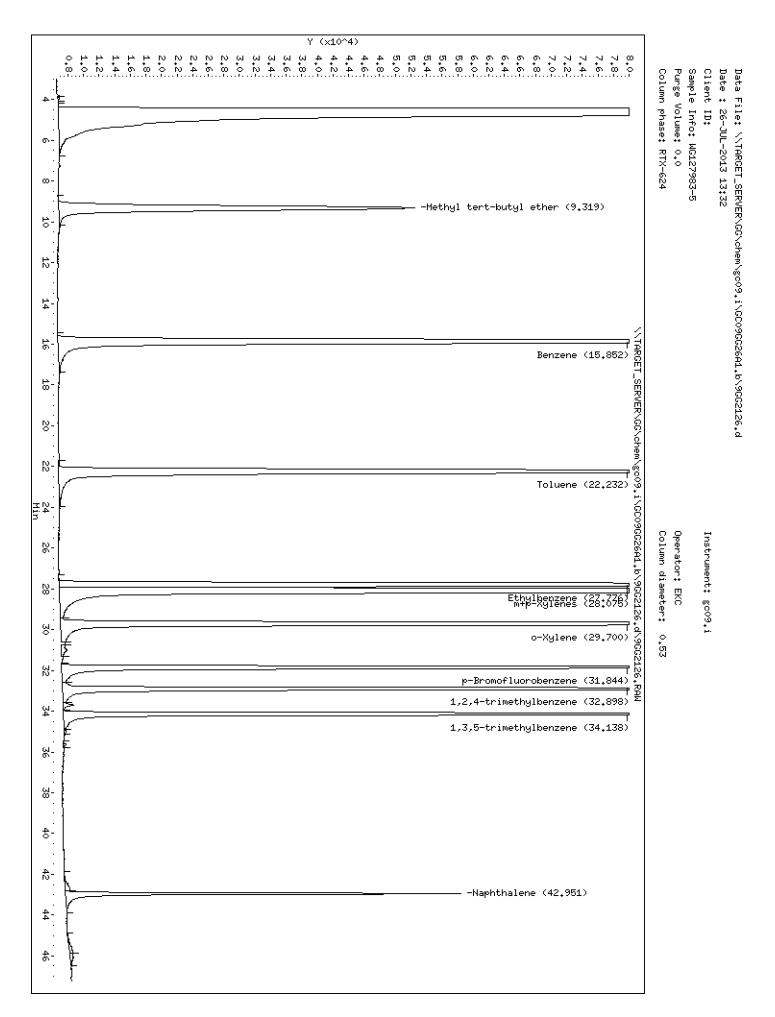
Target Version: 4.12 Processing Host: V200T3

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt	0.00500	Dilution Factor Final Volume (L)
Vo Cond Variable	0.00500	Sample Volume (L)

Local Compound Variable Cpnd Variable

	AMOUNTS								
							CAL-AMT	ON-COL	
Cor	npo	unds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:	==	=======================================	====	======	======		======	======	========
M	1	Gasoline Range Organic				12909686	1000.00	1000	
	2	Methyl tert-butyl ether	9.318	9.357	-0.039	747725	100.000	94.6	
	3	Benzene	15.851	15.900	-0.049	1701457	100.000	103	
	5	Toluene	22.231	22.294	-0.063	1655535	100.000	102	
	7	Ethylbenzene	27.776	27.852	-0.076	1511410	100.000	101	
	8	m+p-Xylenes	28.075	28.153	-0.078	3127618	200.000	201	
	9	o-Xylene	29.700	29.780	-0.080	1541024	100.000	102	
\$	10	p-Bromofluorobenzene	31.844	31.916	-0.072	1387333	200.000	197	
	11	1,2,4-trimethylbenzene	32.897	32.966	-0.069	1226204	100.000	100	
	12	1,3,5-trimethylbenzene	34.138	34.206	-0.068	1076450	100.000	101	
	13	Naphthalene	42.951	43.018	-0.067	322263	100.000	95.8	



Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2127.d

Report Date: 22-Aug-2013 11:46

### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2127.d

Lab Smp Id: WG127983-6

Inj Date : 26-JUL-2013 14:25

Operator : EKC Smp Info : WG127983-6 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date: 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 14:25 Cal File: 9GG2127.d

Als bottle: 1 Calibration Sample, Level: 6

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T3

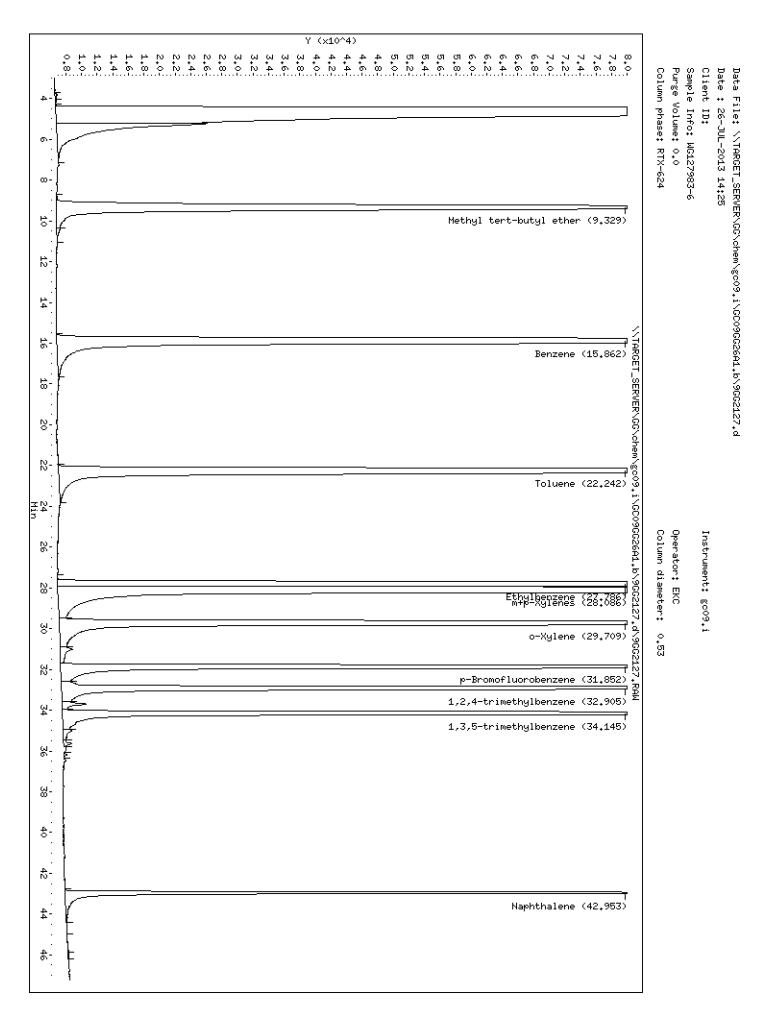
Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

		AMOUNTS						
						CAL-AMT	ON-COL	
Cor	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:		====	======	======	======	======	======	========
M	1 Gasoline Range Organic				26563385	2000.00	2060	
	2 Methyl tert-butyl ether	9.329	9.357	-0.028	1629782	200.000	205(A)	
	3 Benzene	15.862	15.900	-0.038	3465279	200.000	208(A)	
	5 Toluene	22.242	22.294	-0.052	3343646	200.000	204(A)	
	7 Ethylbenzene	27.786	27.852	-0.066	3059534	200.000	203(A)	
	8 m+p-Xylenes	28.086	28.153	-0.067	6349647	400.000	407(A)	
	9 o-Xylene	29.709	29.780	-0.071	3157679	200.000	206(A)	
\$	10 p-Bromofluorobenzene	31.852	31.916	-0.064	2858153	400.000	404(A)	
	11 1,2,4-trimethylbenzene	32.905	32.966	-0.061	2551361	200.000	207(A)	
	12 1,3,5-trimethylbenzene	34.145	34.206	-0.061	2270475	200.000	210(A)	
	13 Naphthalene	42.952	43.018	-0.066	735982	200.000	215(A)	

### QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: 9GG2130.d

Report Date: 28-Oct-2013 14:38

### Katahdin Analytical Services

Data file: \\target\_server\GG\chem\gc09.i\GC09GGicalchecks.b\9GG2130.d

Lab Smp Id: WG127983-1

Inj Date : 26-JUL-2013 17:56

Operator : EKC Inst ID: gc09.i

Smp Info : WG127983-1

Misc Info: WG127426, WG115745-2

Comment : SW846 5030B
Method : \target\_server\GG\chem\gc09.i\GC09GGicalchecks.b\GROB017A.m

Meth Date: 17-Oct-2013 11:59 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo	0.00500	Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

		CONCENTRATIONS						
						ON-COLUMN	FINAL	
Cot	npounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:		====	======	======	======	======	======	========
M	1 Gasoline Range Organic				121758	9.46411	9.46	
	2 Methyl tert-butyl ether	9.301	9.357	-0.056	6010	0.78793	0.788	
	3 Benzene	15.860	15.900	-0.040	15826	0.95708	0.957	
	5 Toluene	22.233	22.294	-0.061	15470	0.95457	0.954	
	7 Ethylbenzene	27.805	27.852	-0.047	14185	0.95098	0.951	
	8 m+p-Xylenes	28.109	28.153	-0.044	29569	1.91091	1.91	
	9 o-Xylene	29.742	29.780	-0.038	16358	1.05781	1.06	
\$	10 p-Bromofluorobenzene	31.892	31.916	-0.024	12863	1.84762	1.85(R)	
	11 1,2,4-trimethylbenzene	32.951	32.966	-0.015	11095	0.91652	0.916	
	12 1,3,5-trimethylbenzene	34.196	34.206	-0.010	9784	0.91989	0.920	
	13 Naphthalene	43.019	43.018	0.001	3461	1.00843	1.01	

### QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2130.d

Report Date: 22-Aug-2013 11:46

### Katahdin Analytical Services

Data file: \\TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.b\9GG2130.d

Lab Smp Id: WG127983-1

Inj Date : 26-JUL-2013 17:56

Operator : EKC Smp Info : WG127983-1 Inst ID: gc09.i

Misc Info :

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GG26A1.B\GROB017A.m

Meth Date : 29-Jul-2013 12:07 ecyr Quant Type: ESTD

Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 Calibration Sample, Level: 1

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

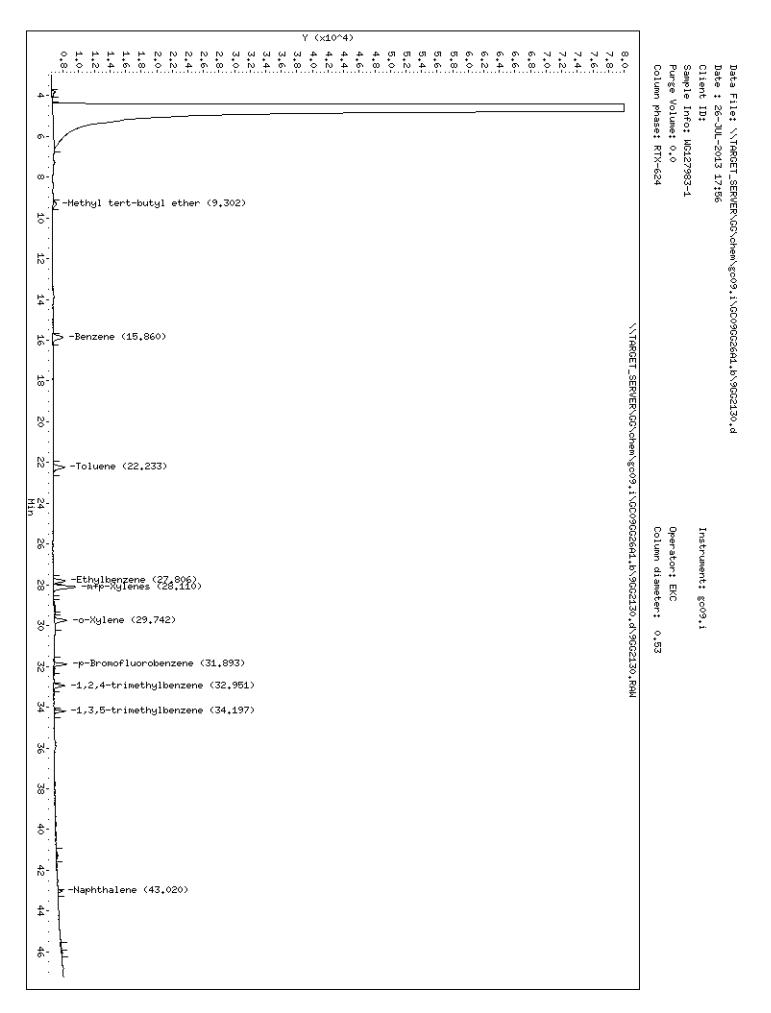
Target Version: 4.12 Processing Host: V200T3

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	0.00500	Sample Volume (L)
O		Tagal Campacinal Wassiabl

Cpnd Variable Local Compound Variable

			AMOUNTS						
							CAL-AMT	ON-COL	
Cor	npc	unds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:		=======================================	====	======	======	======	======	======	========
M	1	Gasoline Range Organic				121758	10.0000	9.46	
	2	Methyl tert-butyl ether	9.301	9.357	-0.056	6010	1.00000	0.788	
	3	Benzene	15.860	15.900	-0.040	15826	1.00000	0.957	
	5	Toluene	22.233	22.294	-0.061	15470	1.00000	0.954	
	7	Ethylbenzene	27.805	27.852	-0.047	14185	1.00000	0.951	
	8	m+p-Xylenes	28.109	28.153	-0.044	29569	2.00000	1.91	
	9	o-Xylene	29.742	29.780	-0.038	16358	1.00000	1.06	
\$	10	p-Bromofluorobenzene	31.892	31.916	-0.024	12863	2.00000	1.85	
	11	1,2,4-trimethylbenzene	32.951	32.966	-0.015	11095	1.00000	0.916	
	12	1,3,5-trimethylbenzene	34.196	34.206	-0.010	9784	1.00000	0.920	
	13	Naphthalene	43.019	43.018	0.001	3461	1.00000	1.01	



Data File: \target\_server\GG\chem\gc09.i\GC09GG26A1.b\9GG2131.d

Report Date: 17-Oct-2013 12:00

### Katahdin Analytical Services

Data file: \\target\_server\GG\chem\gc09.i\GC09GG26A1.b\\9GG2131.d

Lab Smp Id: WG127983-7

Inj Date : 26-JUL-2013 18:50

Operator : EKC Smp Info : WG127983-7,SG5385 Misc Info : WG127983,WG127983-2,SG5385-1 Inst ID: gc09.i

Comment : SW846 5030B
Method : \target\_server\GG\chem\gc09.i\GC09GG26A1.b\GROB017A.m

Meth Date: 17-Oct-2013 11:59 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: IND CHECK

Dil Factor: 1.00000

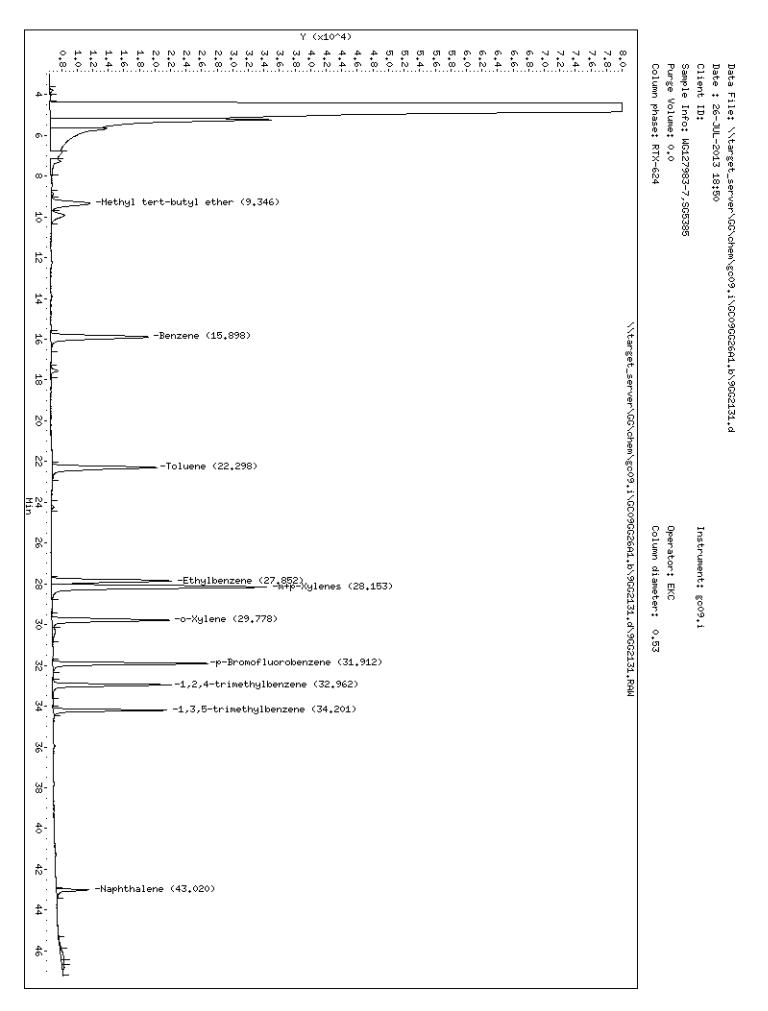
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

		CONCENTRATIONS						
						ON-COLUMN	FINAL	
Cor	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:	=======================================	====	======	======		======	======	========
M	1 Gasoline Range Organic				1196622	92.9973	93.0	
	2 Methyl tert-butyl ether	9.346	9.357	-0.011	77998	10.2257	10.2	
	3 Benzene	15.898	15.900	-0.002	154354	9.33458	9.33	
	5 Toluene	22.298	22.294	0.004	149969	9.25375	9.25	
	7 Ethylbenzene	27.851	27.852	-0.001	140538	9.42185	9.42	
	8 m+p-Xylenes	28.153	28.153	0.000	289404	18.7029	18.7	
	9 o-Xylene	29.777	29.780	-0.003	143528	9.28138	9.28	
\$	10 p-Bromofluorobenzene	31.911	31.916	-0.005	139288	20.0071	20.0	
	11 1,2,4-trimethylbenzene	32.961	32.966	-0.005	114327	9.44413	9.44	
	12 1,3,5-trimethylbenzene	34.201	34.206	-0.005	98943	9.30261	9.30	
	13 Naphthalene	43.019	43.018	0.001	27561	8.03044	8.03	







**SDG:** WE40-1

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-

Lab ID :WG134903-4 Analytical Date: 11/23/13 10:15
Lab File ID :9GK4001A.d Instrument ID: GC09

Compound	RRF/Amount	RF100	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type	
1 Gasoline Range Organic	12787	12294	0.100	-3.86072	20.00000	Averaged	
2 Methyl tert-butyl ether	7628	7523	0.100	-1.37164	20.00000	Averaged	
3 Benzene	16536	15133	0.100	-8.48600	20.00000	Averaged	
5 Toluene	16206	14609	0.100	-9.85537	20.00000	Averaged	
7 Ethylbenzene	14916	13823	0.100	-7.33015	20.00000	Averaged	
8 m+p-Xylenes	15474	14442	0.100	-6.67008	20.00000	Averaged	
9 o-Xylene	15464	15063	0.100	-2.59297	20.00000	Averaged	
11 1,2,4-trimethylbenzene	12106	11809	0.100	-2.45352	20.00000	Averaged	
12 1,3,5-trimethylbenzene	10636	10969	0.100	3.12661	20.00000	Averaged	
13 Naphthalene	3432	5124	0.100	49.29489	20.00000	Averaged	<-
10 p-Bromofluorobenzene	6962	6230	0.100	-10.51954	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\9GK4001A.d

Report Date: 29-Nov-2013 09:09

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK23A1.b\\9GK4001A.d

Lab Smp Id: WG134903-4

Inj Date : 23-NOV-2013 10:15

Operator : JLP Smp Info : WG134903-4,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-1 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\GROB017A.m

Meth Date : 29-Nov-2013 08:53 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

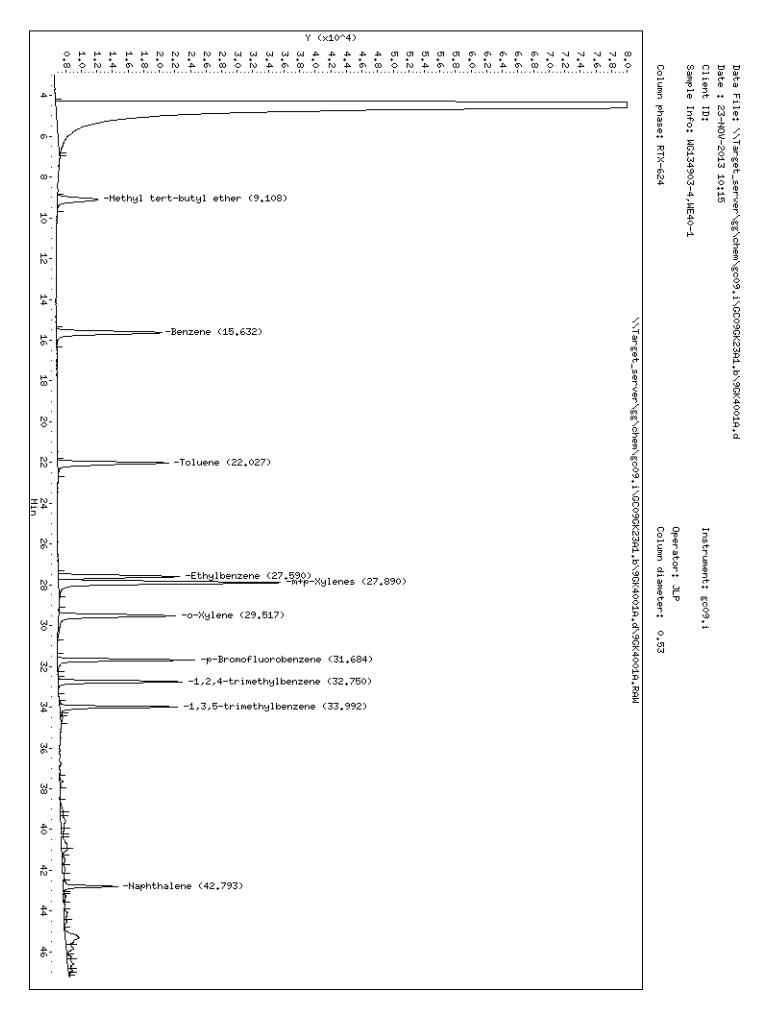
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

### Concentration Formula:

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Volume of MeOH (L)
M	0.0000	Moisture (%)
Ws	0.01000	Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

						AMOUN	TS	
						CAL-AMT	ON-COL	
Cor	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==:	=======================================	====		======	======	======	======	========
M	1 Gasoline Range Organic				1229349	100.000	101	
	2 Methyl tert-butyl ether	9.107	9.224	-0.117	75230	10.0000	9.86	
	3 Benzene	15.632	15.900	-0.268	151325	10.0000	9.15	
	5 Toluene	22.027	22.103	-0.076	146091	10.0000	9.01	
	7 Ethylbenzene	27.590	27.685	-0.095	138228	10.0000	9.27	
	8 m+p-Xylenes	27.890	27.985	-0.095	288833	20.0000	18.7	
	9 o-Xylene	29.517	29.614	-0.097	150631	10.0000	9.74	
\$	10 p-Bromofluorobenzene	31.683	31.745	-0.062	124591	20.0000	17.9	
	11 1,2,4-trimethylbenzene	32.750	32.966	-0.216	118086	10.0000	9.75	
	12 1,3,5-trimethylbenzene	33.991	33.983	0.008	109686	10.0000	10.3	
	13 Naphthalene	42.793	42.781	0.012	51239	10.0000	14.9	







Lab Name: Katahdin Analytical Services

Project : NAVSTA Newport CTO WE40-1

Leb ID : WG134003 5

Lab ID :WG134903-5
Lab File ID :9GK4015A.d
Analytical Date: 11/23/13 23:45
Instrument ID: GC09

Compound	RRF/Amount	RF250	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type	
1 Gasoline Range Organic	12787	11625	0.100	-9.09249	20.00000	Averaged	
2 Methyl tert-butyl ether	7628	8033	0.100	5.30882	20.00000	Averaged	
3 Benzene	16536	14109	0.100	-14.67345	20.00000	Averaged	
5 Toluene	16206	13716	0.100	-15.36669	20.00000	Averaged	
7 Ethylbenzene	14916	12920	0.100	-13.38130	20.00000	Averaged	
8 m+p-Xylenes	15474	13271	0.100	-14.23702	20.00000	Averaged	
9 o-Xylene	15464	13513	0.100	-12.61892	20.00000	Averaged	
11 1,2,4-trimethylbenzene	12106	11144	0.100	-7.94123	20.00000	Averaged	
12 1,3,5-trimethylbenzene	10636	9926	0.100	-6.67402	20.00000	Averaged	
13 Naphthalene	3432	6342	0.100	84.79944	20.00000	Averaged	<-
10 p-Bromofluorobenzene	6962	5854	0.100	-15.91074	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\9GK4015A.d

Report Date: 29-Nov-2013 09:09

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK23A1.b\\9GK4015A.d

Lab Smp Id: WG134903-5

Inj Date : 23-NOV-2013 23:45

Operator : JLP Smp Info : WG134903-5,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-1 Inst ID: gc09.i

Comment : SW846 5030B

Method : \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\GROB017A.m

Meth Date : 29-Nov-2013 08:53 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

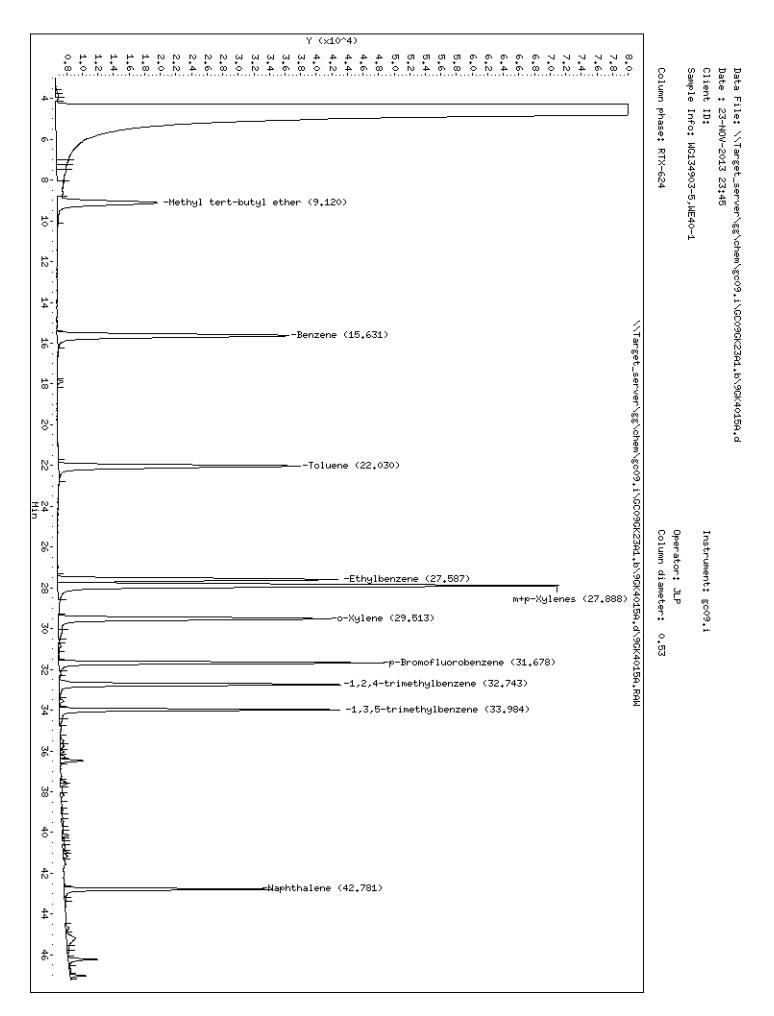
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

### Concentration Formula:

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable
- <u>-</u>		L

						AMOUN	TS	
						CAL-AMT	ON-COL	
Co	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==		====		======	======	======	======	========
M	1 Gasoline Range Organic				2906129	100.000	248	
	2 Methyl tert-butyl ether	9.120	9.224	-0.104	200814	10.0000	26.3	
	3 Benzene	15.630	15.900	-0.270	352734	10.0000	21.3	
	5 Toluene	22.029	22.103	-0.074	342898	10.0000	21.2	
	7 Ethylbenzene	27.586	27.685	-0.099	323005	10.0000	21.6	
	8 m+p-Xylenes	27.888	27.985	-0.097	663538	20.0000	42.9	
	9 o-Xylene	29.513	29.614	-0.101	337817	10.0000	21.8	
\$	10 p-Bromofluorobenzene	31.677	31.745	-0.068	292711	20.0000	42.0	
	11 1,2,4-trimethylbenzene	32.742	32.966	-0.224	278607	10.0000	23.0	
	12 1,3,5-trimethylbenzene	33.983	33.983	0.000	248155	10.0000	23.3	
	13 Naphthalene	42.781	42.781	0.000	158561	10.0000	46.2	







**SDG:** WE40-1

Lab Name: Katahdin Analytical Services

**Project :** NAVSTA Newport CTO WE40-

Lab File ID :9GK4020A.d Instrument ID: Go Initial Calibration Date(s): 07/26/13 09:58 07/26/13 17:56 Column ID: A

Compound	RRF/Amount	RF100	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type
1 Gasoline Range Organic	12787	13055	0.100	2.09200	20.00000	Averaged
2 Methyl tert-butyl ether	7628	8000	0.100	4.87802	20.00000	Averaged
3 Benzene	16536	16560	0.100	0.14622	20.00000	Averaged
5 Toluene	16206	16044	0.100	-1.00325	20.00000	Averaged
7 Ethylbenzene	14916	15136	0.100	1.47639	20.00000	Averaged
8 m+p-Xylenes	15474	15932	0.100	2.96009	20.00000	Averaged
9 o-Xylene	15464	15285	0.100	-1.15674	20.00000	Averaged
11 1,2,4-trimethylbenzene	12106	12929	0.100	6.79921	20.00000	Averaged
12 1,3,5-trimethylbenzene	10636	11167	0.100	4.99008	20.00000	Averaged
13 Naphthalene	3432	3563	0.100	3.80626	20.00000	Averaged
10 p-Bromofluorobenzene	6962	6689	0.100	-3.91934	20.00000	Averaged

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4020A.d

Report Date: 27-Nov-2013 15:21

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4020A.d

Lab Smp Id: WG134903-6

Inj Date : 25-NOV-2013 08:06

Operator : JLP Smp Info : WG134903-6,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-3 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

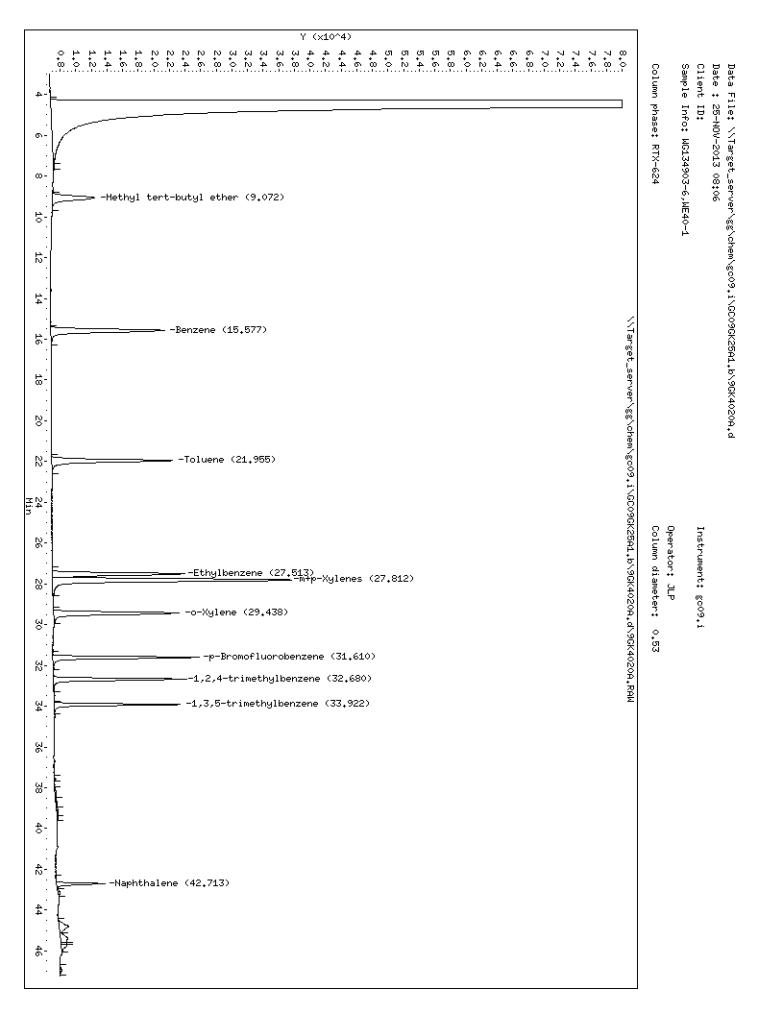
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

#### Concentration Formula:

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Volume of MeOH (L)
M	0.0000	Moisture (%)
Ws	0.01000	Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

						AMOUN	TS	
						CAL-AMT	ON-COL	
Co	ompounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==		====	======	======	======	======	======	========
M	1 Gasoline Range Organic				1305467	100.000	102	
	2 Methyl tert-butyl ether	9.072	9.085	-0.013	79997	10.0000	10.5	
	3 Benzene	15.577	15.589	-0.012	165599	10.0000	10.0	
	5 Toluene	21.955	21.982	-0.027	160437	10.0000	9.90	
	7 Ethylbenzene	27.512	27.538	-0.026	151364	10.0000	10.1	
	8 m+p-Xylenes	27.812	27.839	-0.027	318636	20.0000	20.6	
	9 o-Xylene	29.437	29.464	-0.027	152852	10.0000	9.88	
\$	10 p-Bromofluorobenzene	31.610	31.633	-0.023	133781	20.0000	19.2	
	11 1,2,4-trimethylbenzene	32.680	32.700	-0.020	129287	10.0000	10.7	
	12 1,3,5-trimethylbenzene	33.921	33.941	-0.020	111668	10.0000	10.5	
	13 Naphthalene	42.712	42.734	-0.022	35627	10.0000	10.4	







Lab Name: Katahdin Analytical Services

Project : NAVSTA Newport CTO WE40-1

SDG: WE40-1

Lab ID :WG134903-7 Analytical Date: 11/25/13 20:43
Lab File ID :9GK4032A.d Instrument ID: GC09

Compound	RRF/Amount	RF250	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type
1 Gasoline Range Organic	12787	12072	0.100	-5.59460	20.00000	Averaged
2 Methyl tert-butyl ether	7628	9000	0.100	17.99849	20.00000	Averaged
3 Benzene	16536	14997	0.100	-9.30495	20.00000	Averaged
5 Toluene	16206	14857	0.100	-8.32473	20.00000	Averaged
7 Ethylbenzene	14916	13771	0.100	-7.67742	20.00000	Averaged
8 m+p-Xylenes	15474	14302	0.100	-7.57323	20.00000	Averaged
9 o-Xylene	15464	13774	0.100	-10.92829	20.00000	Averaged
11 1,2,4-trimethylbenzene	12106	11513	0.100	-4.89371	20.00000	Averaged
12 1,3,5-trimethylbenzene	10636	10114	0.100	-4.90645	20.00000	Averaged
13 Naphthalene	3432	4087	0.100	19.07927	20.00000	Averaged
10 p-Bromofluorobenzene	6962	6239	0.100	-10.38754	20.00000	Averaged

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4032A.d

Report Date: 27-Nov-2013 15:21

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4032A.d

Lab Smp Id: WG134903-7

Inj Date : 25-NOV-2013 20:43

Operator : JLP Smp Info : WG134903-7,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-3 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

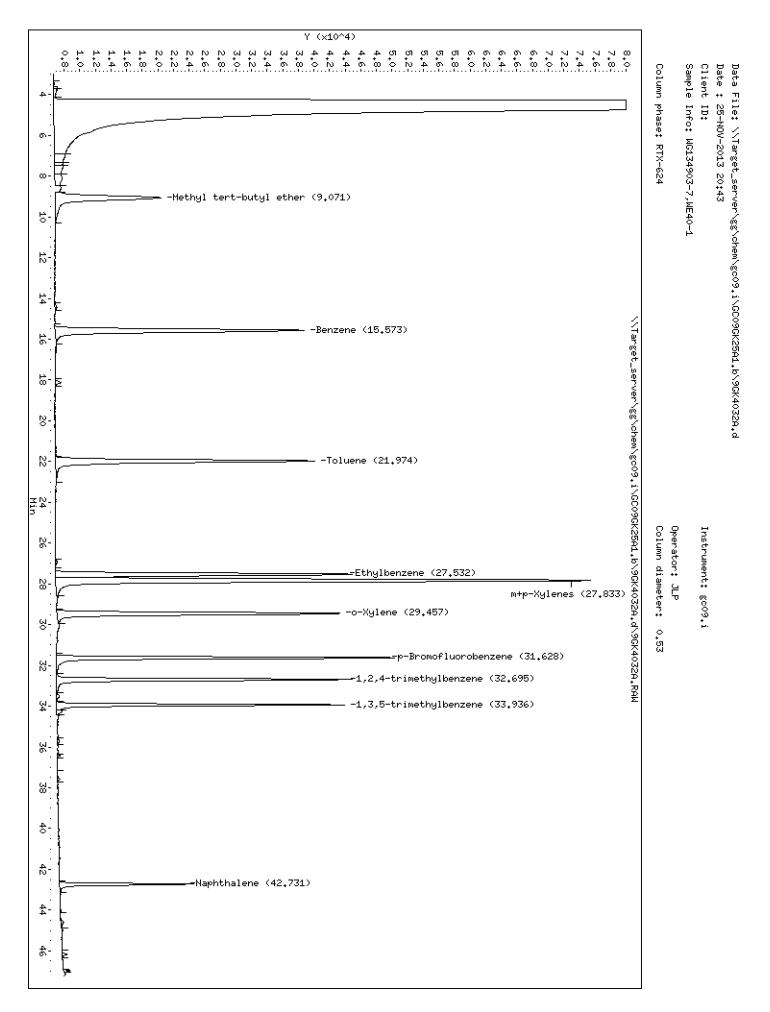
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

### Concentration Formula:

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Volume of MeOH (L)
M	0.0000	Moisture (%)
Ws	0.01000	Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

						AMOUN	TS	
						CAL-AMT	ON-COL	
Co	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==		====		======	======	======	======	========
M	1 Gasoline Range Organic				3017948	100.000	244	
	2 Methyl tert-butyl ether	9.070	9.085	-0.015	225012	10.0000	29.5	
	3 Benzene	15.572	15.589	-0.017	374927	10.0000	22.7	
	5 Toluene	21.973	21.982	-0.009	371429	10.0000	22.9	
	7 Ethylbenzene	27.531	27.538	-0.007	344275	10.0000	23.1	
	8 m+p-Xylenes	27.833	27.839	-0.006	715095	20.0000	46.2	
	9 o-Xylene	29.457	29.464	-0.007	344353	10.0000	22.3	
\$	10 p-Bromofluorobenzene	31.628	31.633	-0.005	311937	20.0000	44.8	
	11 1,2,4-trimethylbenzene	32.695	32.700	-0.005	287830	10.0000	23.8	
	12 1,3,5-trimethylbenzene	33.936	33.941	-0.005	252855	10.0000	23.8	
	13 Naphthalene	42.731	42.734	-0.003	102172	10.0000	29.8	







**SDG:** WE40-1

Lab Name: Katahdin Analytical Services

Project: NAVSTA Newport CTO WE40-

**Lab ID :**WG134903-8 **Analytical Date:** 11/26/13 04:00 **Lab File ID :**9GK4040.d **Instrument ID:** GC09

Compound	RRF/Amount	RF100	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type	
1 Gasoline Range Organic	12787	12233	0.100	-4.33218	20.00000	Averaged	
2 Methyl tert-butyl ether	7628	8708	0.100	14.15876	20.00000	Averaged	
3 Benzene	16536	15027	0.100	-9.12522	20.00000	Averaged	
5 Toluene	16206	14731	0.100	-9.10134	20.00000	Averaged	
7 Ethylbenzene	14916	13823	0.100	-7.32613	20.00000	Averaged	
8 m+p-Xylenes	15474	14271	0.100	-7.77421	20.00000	Averaged	
9 o-Xylene	15464	13429	0.100	-13.16133	20.00000	Averaged	
11 1,2,4-trimethylbenzene	12106	12420	0.100	2.59537	20.00000	Averaged	
12 1,3,5-trimethylbenzene	10636	10829	0.100	1.81503	20.00000	Averaged	
13 Naphthalene	3432	4824	0.100	40.54797	20.00000	Averaged	<-
10 p-Bromofluorobenzene	6962	6082	0.100	-12.63462	20.00000	Averaged	

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4040.d

Report Date: 27-Nov-2013 15:22

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4040.d

Lab Smp Id: WG134903-8

Inj Date : 26-NOV-2013 04:00

Operator : JLP Smp Info : WG134903-8,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-3 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

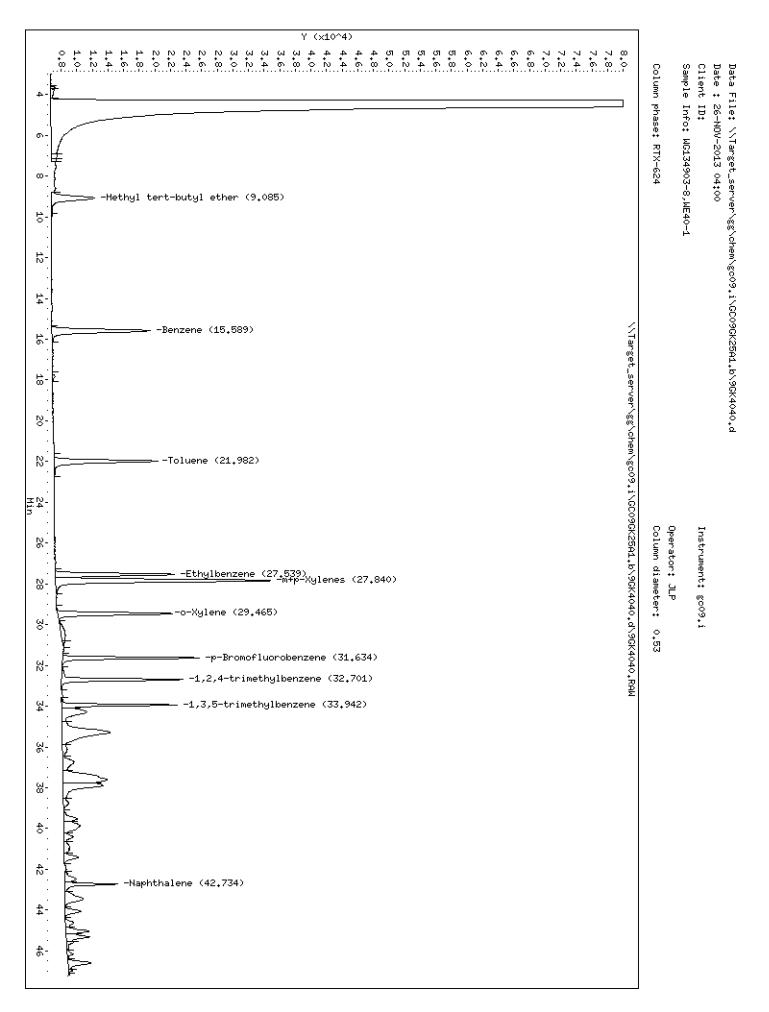
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

### Concentration Formula:

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable
- <u>-</u>		L

						AMOUN	TS	
						CAL-AMT	ON-COL	
Co	mpounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
==		====	======	======	======	======	======	========
M	1 Gasoline Range Organic				1223321	100.000	100	
	2 Methyl tert-butyl ether	9.085	9.085	0.000	87076	10.0000	11.4	
	3 Benzene	15.589	15.589	0.000	150268	10.0000	9.09	
	5 Toluene	21.982	21.982	0.000	147313	10.0000	9.09	
	7 Ethylbenzene	27.538	27.538	0.000	138234	10.0000	9.27	
	8 m+p-Xylenes	27.839	27.839	0.000	285416	20.0000	18.4	
	9 o-Xylene	29.464	29.464	0.000	134288	10.0000	8.68	
\$	10 p-Bromofluorobenzene	31.633	31.633	0.000	121646	20.0000	17.5	
	11 1,2,4-trimethylbenzene	32.700	32.700	0.000	124198	10.0000	10.2	
	12 1,3,5-trimethylbenzene	33.941	33.941	0.000	108291	10.0000	10.2	
	13 Naphthalene	42.734	42.734	0.000	48237	10.0000	14.0	







Lab Name: Katahdin Analytical Services

Project :NAVSTA Newport CTO WE40-1 SDG: WE40-1

Lab ID :WG135145-4 Analytical Date: 11/26/13 08:35 Lab File ID :9GK4041A.d Instrument ID: GC09

Compound	RRF/Amount	RF100	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type
1 Gasoline Range Organic	12787	11600	0.100	-9.28802	20.00000	Averaged
2 Methyl tert-butyl ether	7628	7341	0.100	-3.75770	20.00000	Averaged
3 Benzene	16536	14616	0.100	-11.60893	20.00000	Averaged
5 Toluene	16206	14286	0.100	-11.85028	20.00000	Averaged
7 Ethylbenzene	14916	13217	0.100	-11.39419	20.00000	Averaged
8 m+p-Xylenes	15474	14046	0.100	-9.22990	20.00000	Averaged
9 o-Xylene	15464	13892	0.100	-10.16924	20.00000	Averaged
11 1,2,4-trimethylbenzene	12106	11178	0.100	-7.66433	20.00000	Averaged
12 1,3,5-trimethylbenzene	10636	10050	0.100	-5.51382	20.00000	Averaged
13 Naphthalene	3432	3325	0.100	-3.10794	20.00000	Averaged
10 p-Bromofluorobenzene	6962	5856	0.100	-15.88517	20.00000	Averaged

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4041A.d

Report Date: 27-Nov-2013 15:27

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4041A.d

Lab Smp Id:  $WG135\overline{1}45\overline{-4}$ 

Inj Date : 26-NOV-2013 08:35

Operator : JLP Smp Info : WG135145-4,WE40-1 Inst ID: gc09.i

Misc Info: WG135145, WG127983-2, SG9180-11

Comment : SW846 5030B
Method : \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\GROB017A.m

Meth Date: 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

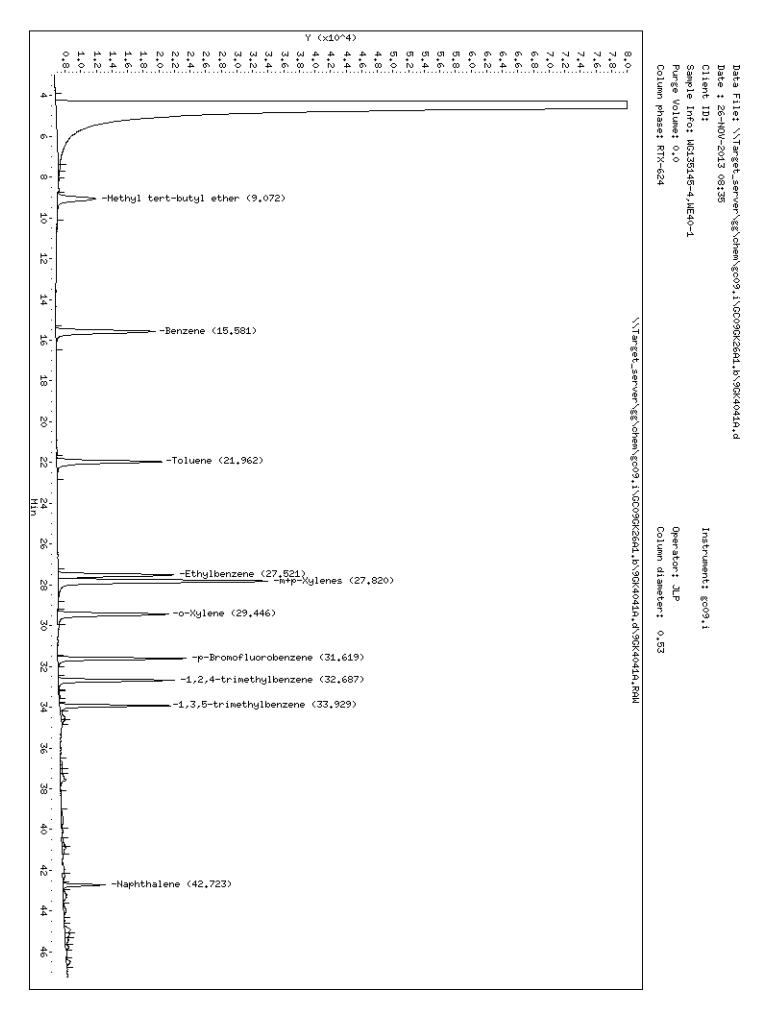
Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo Cpnd Variable		Dilution Factor Final Volume (L) Sample Volume (L) Local Compound Variable

AMOUNTS CAL-AMT ON-COL RT EXP RT DLT RT RESPONSE ( ug/L) ( ug/L) Compounds REVIEW CODE --------- ------ ------ ------======= ======== 9.072 9.085 -0.013 73410 10.0000 9.62 15.580 15.589 -0.009 146161 10.0000 8.84 91.6 M 1 Gasoline Range Organic 2 Methyl tert-butyl ether 3 Benzene 5 Toluene 7 Ethylbenzene 27.819 27.839 -0.020 28U911 2. 9 o-Xylene 29.445 29.464 -0.019 138915 10.0000 8.98 \$ 10 p-Bromofluorobenzene 31.618 31.633 -0.015 117120 20.0000 16.8 11 1,2,4-trimethylbenzene 32.687 32.700 -0.013 111778 10.0000 9.23 12 1,3,5-trimethylbenzene 33.929 33.941 -0.012 100496 10.0000 9.45 32.700 42.722 42.734 -0.012 33254 10.0000 9.69







Lab Name: Katahdin Analytical Services

Project :NAVSTA Newport CTO WE40-1

SDG: WE40-1

Lab ID :WG135145-5 Analytical Date: 11/26/13 21:38 Lab File ID :9GK4053A.d Instrument ID: GC09

Compound	RRF/Amount	RF250	Min RRF	%D/ %Drift	Max %D/ %Drift	Curve Type
1 Gasoline Range Organic	12787	11667	0.100	-8.76323	20.00000	Averaged
2 Methyl tert-butyl ether	7628	7848	0.100	2.88395	20.00000	Averaged
3 Benzene	16536	15088	0.100	-8.75245	20.00000	Averaged
5 Toluene	16206	14405	0.100	-11.11229	20.00000	Averaged
7 Ethylbenzene	14916	13452	0.100	-9.81470	20.00000	Averaged
8 m+p-Xylenes	15474	13983	0.100	-9.63284	20.00000	Averaged
9 o-Xylene	15464	13639	0.100	-11.79999	20.00000	Averaged
11 1,2,4-trimethylbenzene	12106	11083	0.100	-8.45107	20.00000	Averaged
12 1,3,5-trimethylbenzene	10636	9544	0.100	-10.27047	20.00000	Averaged
13 Naphthalene	3432	3641	0.100	6.07603	20.00000	Averaged
10 p-Bromofluorobenzene	6962	6019	0.100	-13.54673	20.00000	Averaged

<sup>\* =</sup> Compound out of QC criteria

Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4053A.d

Report Date: 27-Nov-2013 15:27

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4053A.d

Lab Smp Id:  $WG135\overline{1}45\overline{-5}$ 

Inj Date : 26-NOV-2013 21:38

Operator : JLP Smp Info : WG135145-5,WE40-1 Inst ID: gc09.i

Misc Info: WG135145, WG127983-2, SG9180-11

Comment : SW846 5030B
Method : \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\GROB017A.m

Meth Date: 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d

Als bottle: 1 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: cv.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt		Dilution Factor Final Volume (L)
Vo	0.00500	Sample Volume (L)
Cpnd Variable		Local Compound Variable

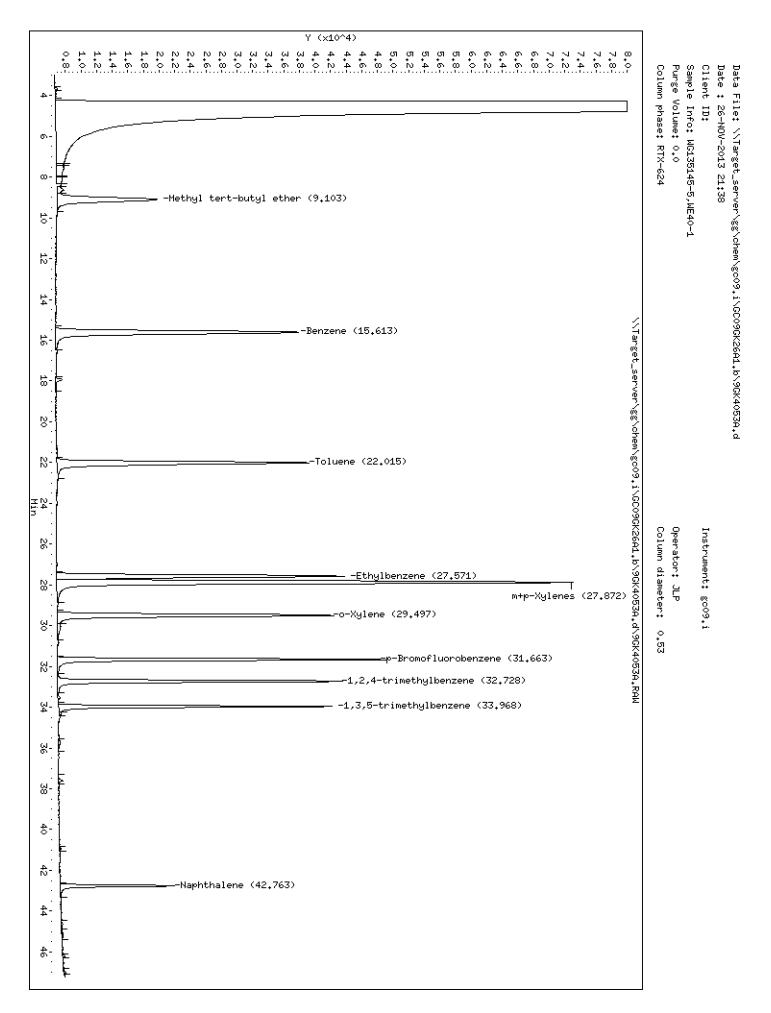
AMOUNTS CAL-AMT ON-COL RT EXP RT DLT RT RESPONSE ( ug/L) ( ug/L) Compounds REVIEW CODE -----======= ---- ------ ------ -----------M 1 Gasoline Range Organic 
 9.102
 9.085
 0.017
 196190
 10.0000
 25.7

 15.613
 15.589
 0.024
 377211
 10.0000
 22.8
 2916655 100.000 2 Methyl tert-butyl ether 3 Benzene 22.014 21.982 0.032 360135 10.0000 22.2 5 Toluene 7 Ethylbenzene 27.570 27.538 0.032 336305 10.0000 22.5 8 m+p-Xylenes 9 o-Xylene 27.872 27.839 0.033 699160 20.0000 29.497 29.464 0.033 340983 10.0000 22.0 \$ 10 p-Bromofluorobenzene
11 1,2,4-trimethylbenzene
12 1,3,5-trimethylbenzene 
 31.662
 31.633
 0.029
 300940
 20.0000
 43.2

 32.727
 32.700
 0.027
 277064
 10.0000
 22.9

 33.968
 33.941
 0.027
 238592
 10.0000
 22.4

 42.763
 42.734
 0.029
 91015
 10.0000
 26.5
 13 Naphthalene



### **Raw QC Data Section**





### **Report of Analytical Results**

**Client:** 

**Lab ID:** WG134903-1

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: 9GK4004A.D

**Sample Date:** Received Date:

Extract Date: 22-NOV-13

Extracted By: JLP

Extraction Method: SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 23-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: NA

**Report Date:** 29-NOV-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	2.0	mg/Kgdrywt	t 1	2.5	2.5	1.8	2.0
p-Bromofluorobenzene		95.0	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\9GK4004A.d

Report Date: 27-Nov-2013 15:06

### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK23A1.b\\9GK4004A.d Lab Smp Id: WG134903-1 Client Smp ID: WG134903-Blank

Inj Date : 23-NOV-2013 13:43

Operator : JLP Smp Info : WG134903-1,WE40-1 Inst ID: gc09.i

Misc Info: WG134903, WG127983-2, SG9044-1

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK23A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:04 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

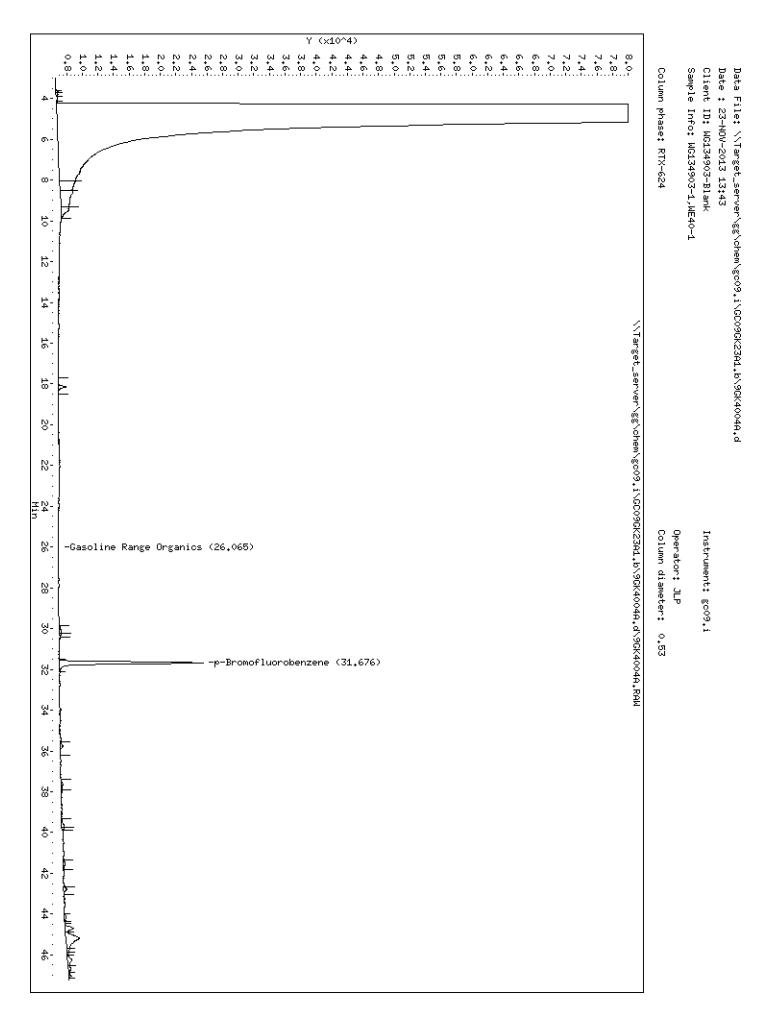
Target Version: 4.12 Processing Host: V200T2

### Concentration Formula:

DF 1.000 Dilution Factor Vt 0.01000 Volume of MeOH ( M 0.00000 Moisture (%) Ws 0.01000 Weight of Sample Cpnd Variable Local Compound V	(L) e (Kg)

CONCENTR	RICHTA

					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
	====	======	======	======	======	======	=======
\$ 10 p-Bromofluorobenzene	31.676	31.745	-0.069	132323	19.0067	4.75	







### **Report of Analytical Results**

**Client:** 

Lab ID: WG134903-1RA

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: 9GK4022A.D

**Sample Date: Received Date:** 

Extract Date: 22-NOV-13

Extracted By: JLP

**Extraction Method:** SW846 5030B

Lab Prep Batch: WG134903

**Analysis Date:** 25-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: NA

**Report Date:** 29-NOV-13

Compound	Qualifier	Result	Units 1	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	J	2.3	mg/Kgdrywt	1	2.5	2.5	1.8	2.0
p-Bromofluorobenzene		87.2	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK25A1.b\9GK4022A.d

Report Date: 27-Nov-2013 15:21

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK25A1.b\\9GK4022A.d Lab Smp Id: WG134903-1RA Client Smp ID: WG134903-Blank

Inj Date : 25-NOV-2013 10:08

Operator : JLP Inst ID: gc09.i

Smp Info : WG134903-1RA,SG9044

Misc Info: WG134903, WG127983-2, SG9044-3

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK25A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:09 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

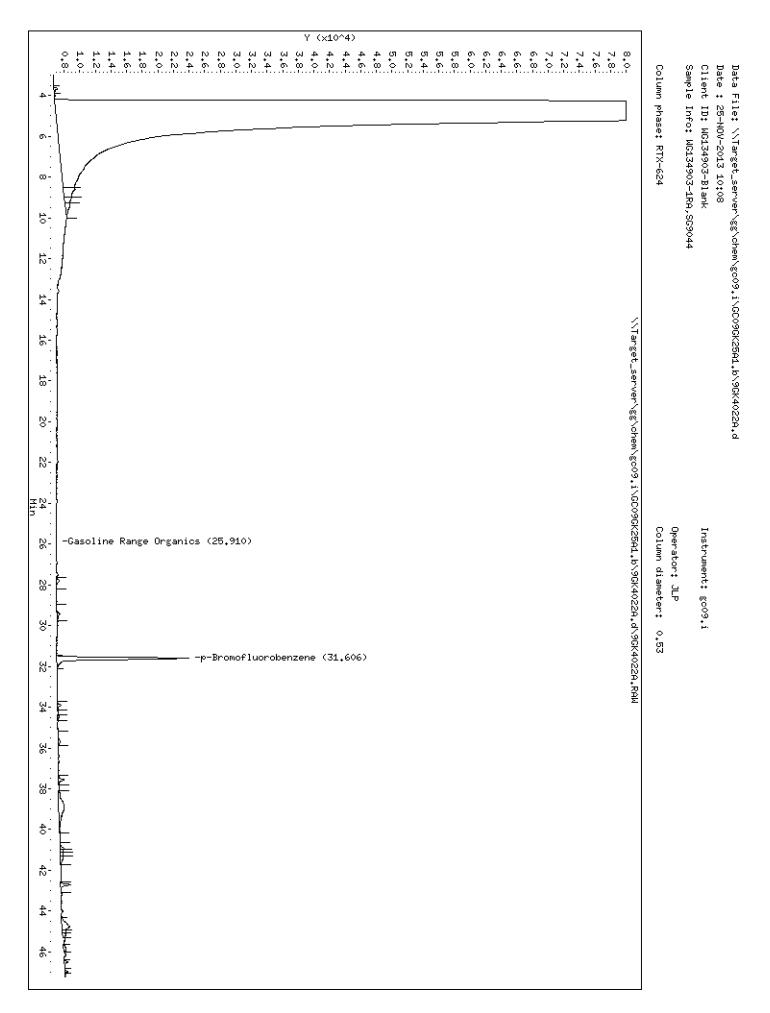
Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable

CONCENTRATIONS

		ON-COLUMN	FINAL	
Compounds	RT EXP RT DLT R	T RESPONSE ( ug/L)	(mg/Kgdrywt)	REVIEW CODE
=======================================	==== ====== =====	== =======	======	========
S 6 Gasoline Range Organics	8.985-42.834	116497 9.11043	2.28(a)	
\$ 10 p-Bromofluorobenzene	31 606 31 633 -0 027	121312 17.4251	4.36	

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).







### **Report of Analytical Results**

**Client:** 

**Lab ID:** WG135145-1

Client ID: Method Blank Sample

Project:

**SDG:** WE40-1

Lab File ID: 9GK4044A.D

**Sample Date: Received Date:** 

Extract Date: 26-NOV-13

Extracted By: JLP

**Extraction Method:** SW846 5030B

Lab Prep Batch: WG135145

**Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: AQ % Solids: NA

**Report Date:** 29-NOV-13

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gasoline Range Organics	U	8.0	ug/l	1	10	10.	6.7	8.0
p-Bromofluorobenzene		94.0	%					

Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4044A.d

Report Date: 27-Nov-2013 15:27

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4044A.d Lab Smp Id: WG135145-1 Client Smp ID: WG135145-Blank

Inj Date : 26-NOV-2013 11:24

Operator : JLP : Smp Info : WG135145-1,WE40-1 Misc Info : WG135145,WG127983-2,SG9180-11 Inst ID: gc09.i

Comment : SW846 5030B
Method : \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\GROB017A.m

Meth Date: 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: BLANK

Dil Factor: 1.00000

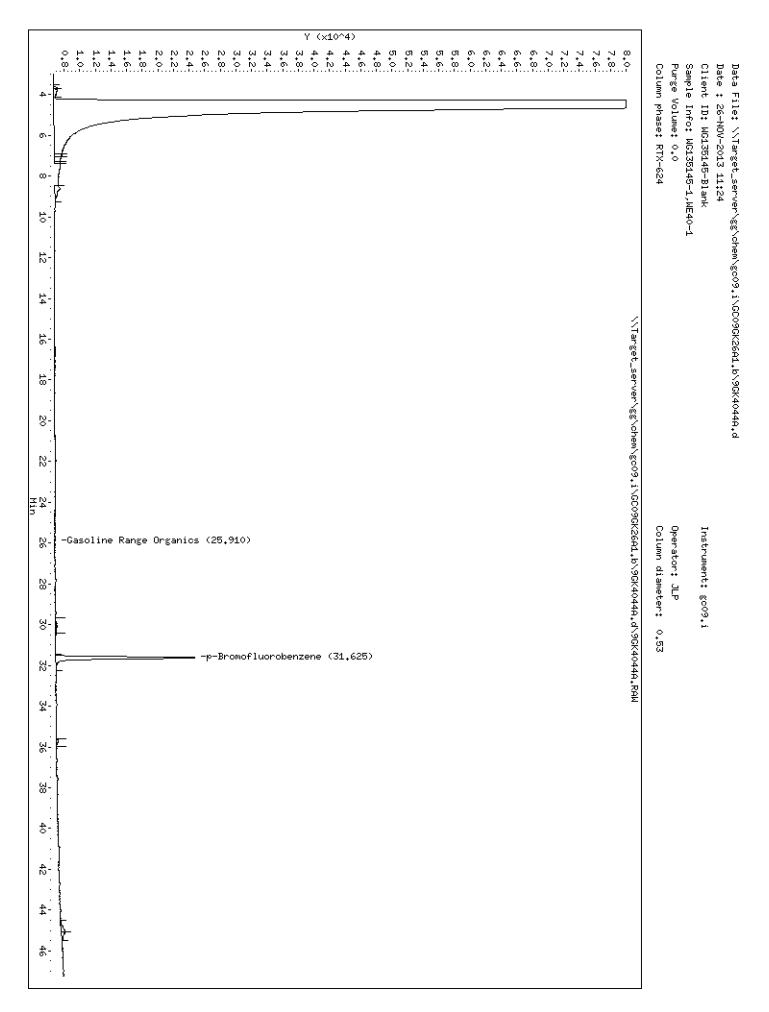
Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

	CONCENTRATIONS						
					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE
	====			======	======	======	========
\$ 10 p-Bromofluorobenzene	31.625	31.633	-0.008	130790	18.7865	18.8	







### LCS/LCSD Recovery Report

**LCS ID:** WG134903-2 **LCSD ID:** WG134903-3

Project: SDG: WE40-1

**Report Date:** 29-NOV-13 **LCS File ID:** 9GK4005A.D

Received Date: Extract Date: 22-NOV-13

Extracted By:JLP

Extraction Method: SW846 5030B Lab Prep Batch: WG134903 LCSD File ID: 9GK4006A.d Analysis Date: 23-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: SL % Solids: NA

	Spike	LCS	LCS	LCSD	LCSD	Conc		RPD	
Compound	Amt	Conc	Rec (%)	Conc	Rec (%)	Units	RPD (%)	Limit	Limits
Gasoline Range Organics	25.0	24.7	98.8	22.6	90.4	mg/Kgdrywt	9	50	67-137
p-Bromofluorobenzene			93.8		94.6				81-119

Data File: \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\9GK4005A.d

Report Date: 27-Nov-2013 15:07

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK23A1.b\\9GK4005A.d Lab Smp Id: WG134903-2 Client Smp ID: WG134903-LCS

Inj Date : 23-NOV-2013 14:38

Operator : JLP Smp Info : WG134903-2,WE40-1 Inst ID: gc09.i

Misc Info: WG134903, WG127983-2, SG9044-1

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK23A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:04 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

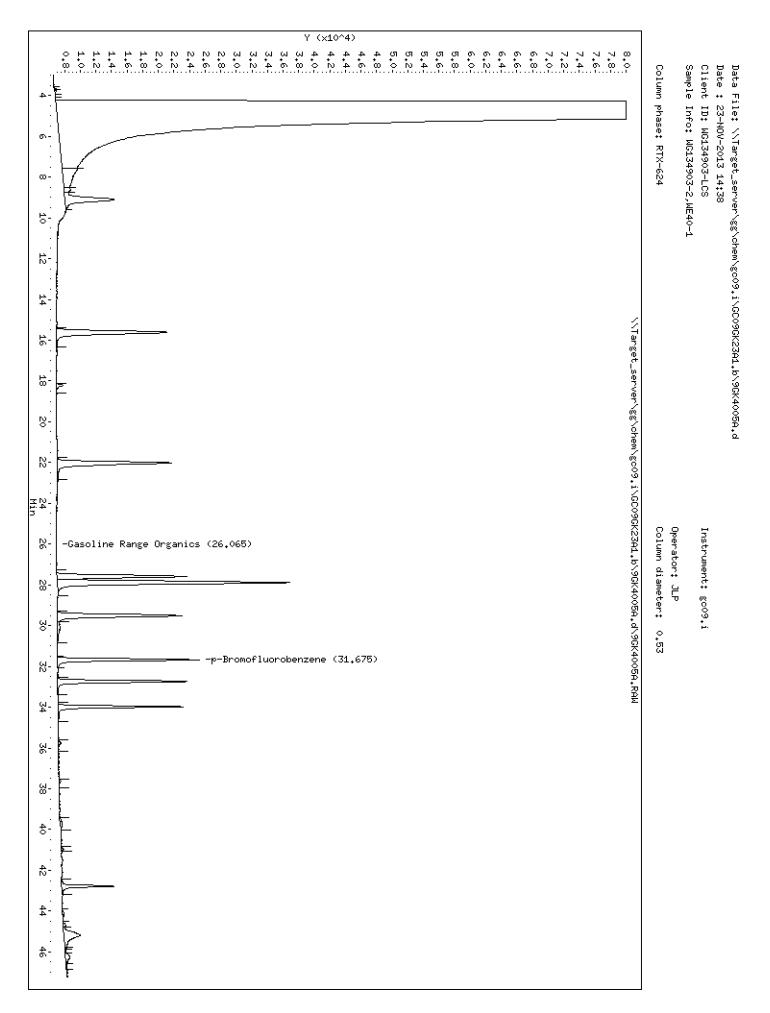
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF Vt M Ws Cpnd Variable	0.01000	Dilution Factor Volume of MeOH (L) Moisture (%) Weight of Sample (Kg) Local Compound Variable

CONCENTRATIONS

				ON-COLUMN	FINAL	
Compounds	RT EXP	RT DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
=======================================	==== =====	:=== =====:	= ======	======	======	========
S 6 Gasoline Range Organics	9.124-43.00	)6	1262717	98.7484	24.7	
\$ 10 p-Bromofluorobenzene	31 674 31 5	45 -0.071	130744	18.7799	4 69	



Data File: \Target\_server\gg\chem\gc09.i\GC09GK23A1.b\9GK4006A.d

Report Date: 27-Nov-2013 15:07

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK23A1.b\\9GK4006A.d Lab Smp Id: WG134903-3Client Smp ID: WG134903-LCSD

Inj Date : 23-NOV-2013 15:32

Operator : JLP Smp Info : WG134903-3,WE40-1 Misc Info : WG134903,WG127983-2,SG9044-1 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK23A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:04 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: LCSD

Dil Factor: 1.00000

Integrator: HP Genie Compound Sublist: SW8015M-GRO.sub

Target Version: 4.12 Processing Host: V200T2

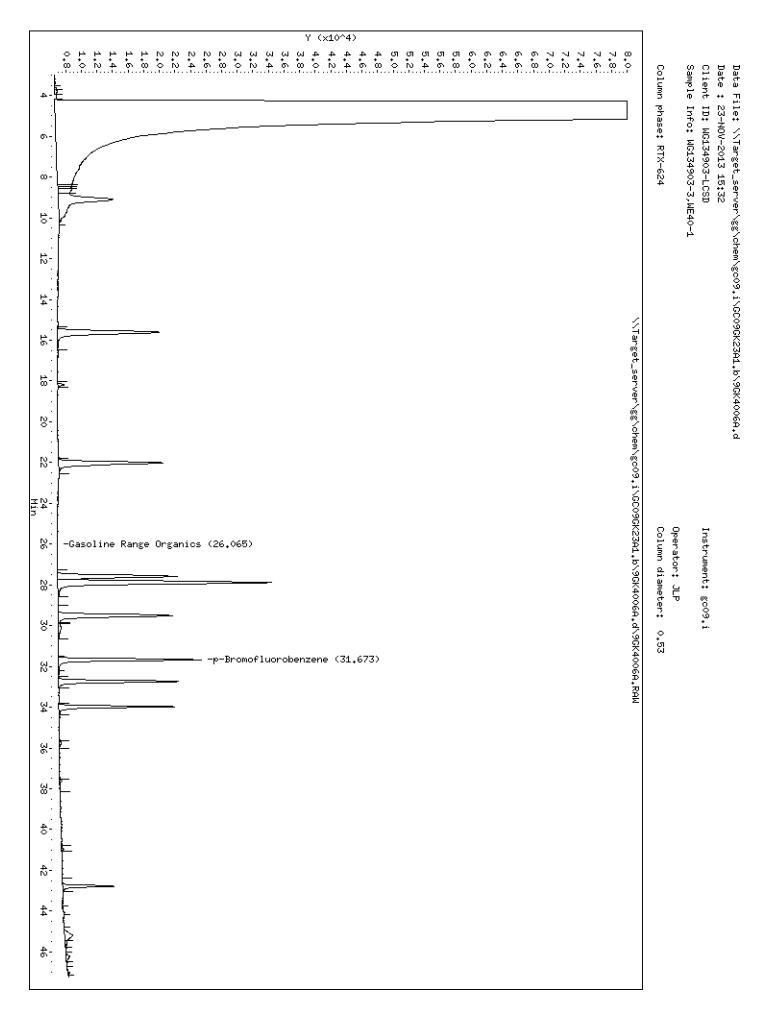
#### Concentration Formula:

Amt \* DF \* (((Vt+((M/100)\*Ws))\*0.005)/(Ws\*0.00002))\*(100/(100-M))\*(1/1000) \*

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Volume of MeOH $(L)$
M	0.00000	Moisture (%)
Ws	0.01000	Weight of Sample (Kg)
Cpnd Variable		Local Compound Variable

CONC	ENTR	TTA	ONS

						ON-COLUMN	FINAL	
C	ompounds	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(mg/Kgdrywt)	REVIEW CODE
= :		====		======	======	======	======	========
S	6 Gasoline Range Organics	9.124-	-43.006		1153445	90.2030	22.6	
Ś	10 n-Bromofluorobenzene	31 673	31 745	-0 072	131781	18 9289	4 73	







### LCS/LCSD Recovery Report

**LCS ID:** WG135145-2 **LCSD ID:** WG135145-3

Project: SDG: WE40-1

**Report Date:** 29-NOV-13 **LCS File ID:** 9GK4045A.D

Received Date: Extract Date: 26-NOV-13

Extracted By: JLP

Extraction Method: SW846 M8015B Lab Prep Batch: WG135145 LCSD File ID: 9GK4046A.d **Analysis Date:** 26-NOV-13

Analyst: JLP

Analysis Method: SW846 M8015B

Matrix: AQ % Solids: NA

	Spike	LCS	LCS	LCSD	LCSD	Conc		RPD	
Compound	Amt	Conc	Rec (%)	Conc	Rec (%)	Units	RPD (%)	Limit	Limits
Gasoline Range Organics	100.	88.6	88.6	101.	101.	ug/l	13	30	73-126
p-Bromofluorobenzene			83.0		92.0				79-121

Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4045A.d

Report Date: 27-Nov-2013 15:27

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4045A.d Lab Smp Id: WG135145-2 Client Smp ID: WG135145-LCS

Inj Date : 26-NOV-2013 14:25

Operator : JLP : Smp Info : WG135145-2,WE40-1 Misc Info : WG135145,WG127983-2,SG9180-11 Inst ID: gc09.i

Comment : SW846 5030B

Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK26A1.B\GROB017A.m

Meth Date : 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: LCS

Dil Factor: 1.00000

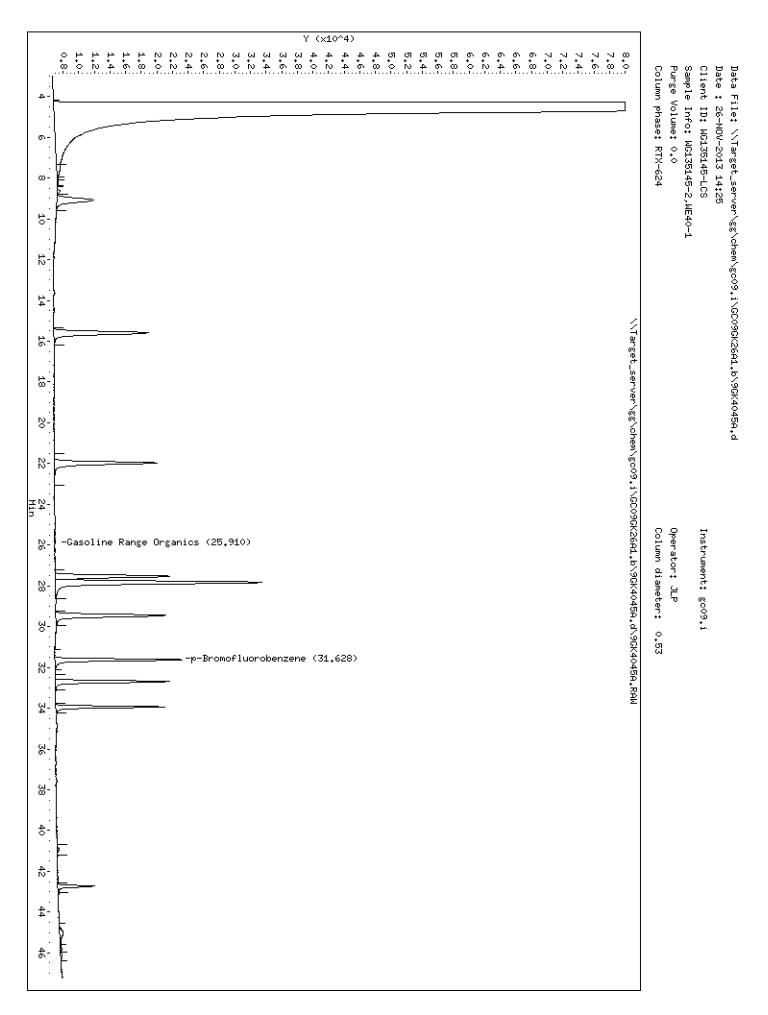
Integrator: HP Genie Compound Sublist: MEDEP4-2-17.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

	CONCENTRATIONS							
				ON-COLUMN	FINAL			
Compounds	RT EXP R	T DLT RT	RESPONSE	( ug/L)	( ug/L)	REVIEW CODE		
	==== =====	== ====== :	======	======	======	========		
S 6 Gasoline Range Organics	8.985-42.834		1133635	88.6538	88.6			
\$ 10 p-Bromofluorobenzene	31.627 31.63	3 -0.006	115474	16.5865	16.6			



Data File: \Target\_server\gg\chem\gc09.i\GC09GK26A1.b\9GK4046A.d

Report Date: 27-Nov-2013 15:27

#### Katahdin Analytical Services

Data file: \\Target\_server\gg\chem\gc09.i\GC09GK26A1.b\\9GK4046A.d Lab Smp Id: WG135145-3 Client Smp ID: WG135145-LCSD

Inj Date : 26-NOV-2013 15:19

Operator : JLP : Smp Info : WG135145-3, WE40-1 Misc Info : WG135145, WG127983-2, SG9180-11 Inst ID: gc09.i

Comment : SW846 5030B
Method : \TARGET\_SERVER\GG\chem\gc09.i\GC09GK26A1.B\GROB017A.m

Meth Date: 27-Nov-2013 15:24 jprescott Quant Type: ESTD Cal Date : 26-JUL-2013 17:56 Cal File: 9GG2130.d Als bottle: 1 QC Sample: LCSD

Dil Factor: 1.00000

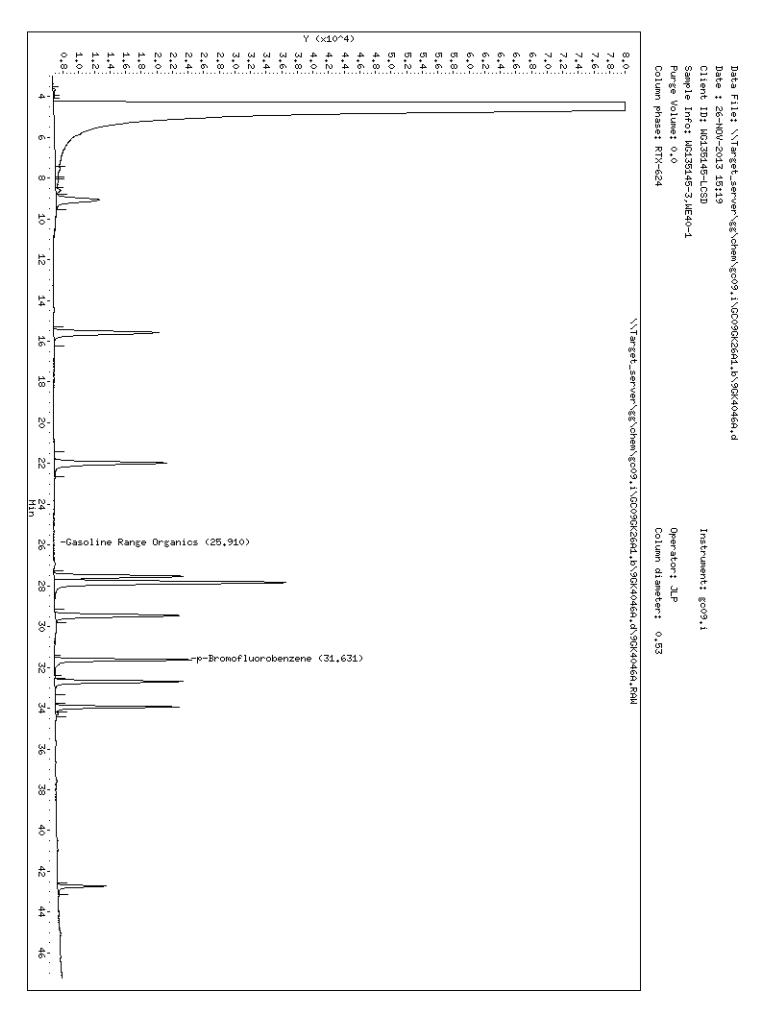
Integrator: HP Genie Compound Sublist: MEDEP4-2-17.sub

Target Version: 4.12 Processing Host: V200T2

Concentration Formula: Amt \* DF \* Vt/Vo \* CpndVariable

Name	Value	Description
DF Vt Vo		Dilution Factor Final Volume (L) Sample Volume (L)
Cpnd Variable		Local Compound Variable

	CONCENTRATIONS							
		ON-COLUMN	FINAL					
Compounds	RT EXP RT DLT RT	RESPONSE ( ug/L)	( ug/L) REVIEW CODE					
=======================================	==== ==================================	=======	=======================================					
S 6 Gasoline Range Organics	8.985-42.834	1292118 101.048	101					
\$ 10 p-Bromofluorobenzene	31.630 31.633 -0.003	128158 18.4085	18.4					



## **Logbooks and Supporting Documents**

Method (Circle): MADEP-VPH-98-1

MEDEP 4.2.17

-	-
SW846	8015(M)

Date	Init.	Sample	Am	nt l	SP.	T	Result	D	it	Y/N	M	ethod	рН	סרפטור-
		Name	Purg		#		File	٦		'/'•	1416	etiloa	Pm	Comments (A) = (TRABOLA
7-23-13	EXC.	N-decane	SM		ı	a.r.	८३१०५	١	•	Y	1.000	OIGAIB	_	
,	,	CN 70/100	31	~	J.	- (0		$\vdash$		1	GRUE	OIGILITY.		4ul mo778
	1						105 (A)			7			<del> </del>	
<b>                                     </b>		WG127426-1	$\vdash$	_	3	-	10618		-	-			_	
		-2	$\vdash$		<u> </u>	<u> </u>	167(4		$\vdash$		<u> </u>			
	,	4 -3			5_	_	10814	<b>)</b>	Ш	4			_	
		n-pentane	1		ما	_	169							5ml (2013078
		SG4973-33 1			٦		110		_					* Iml #65617100ml bI
		1 -33N	250,	ωČ	8			5	٥				-	
		SGSOM-1 B	5m	u_	٩		112	١		7			دع	
		<u>-5 B</u>			10		113	_ }					1	
		-9 A			1}		1)4							
		-13 E			び		115							
		-17 A			13		1)16							
		CV 175			14		רוו							
		S65017-21 A			15		118	1	٦				42	
7-74-13		WG 127426-4 <sup>I</sup>		1	16		119	T					1	SG5017-13MS
)		1 58			1		120	1	1				1	1 -13ms)
	Ţ	C.V 70			2		121	1	7				_	4 131.133
7-26-13	EKL.	ICAL 10	5m	,	١	•	122	<u>-</u> ት	1	Λ	(7) V0	OITAB		int mibe (A)=cs-c10d
١	\	1 100	i		<b>D</b> _	$\dashv$	123(A)	····	7	7	UNCE	CITALE		
		350	_		3	1	BYE		1	1				2m#4 me 127983-2
		500			4	7	125 (A	7	1					5ul #4 -3
		1000	_	-		-		7	$\dashv$	+				10m2#4 -4
	- -	2000	$\neg$	$\dashv$	5	$\dashv$	1261		$\dashv$	+				JW#8 -5
			-	$\dashv$	ما	-	127 (	4	+	<u>+</u>				4m #8 -6
	11	water		$\dashv$	<u>د</u> 7	-	158	+	+	<u>か</u>			-	
	-	TCAL IO	+	$\dashv$	8	$\dashv$	,	+	$\dashv$	7				naph t
<del>                                     </del>	- 1 1	ICAL 10		<u> </u>	8	-	130(4	Т	+				_	*20147 WG127983.1
-	<del>-                                    </del>	IND 100	+	$\dashv$	1		131(4	1	+	1				Jul#5+6 -7

Std. Name	Conc.	Std. Code	Std. Code	
	50 ug/ml	GCV	GCV	
VPH Surr. mix	100 ug/mi	GCV	GCV	-
VPH LCS mix	100 ug/mi	GCV	GCV	
GRO Cal mix	250 ug/mL Total	GCV3081	GCV	
GRO Surr. Mix		GCV3080	GCV	
GRO LCS mix	250 ug/mL Total	GCV3080_	GCV	
GED callow	25 mg 1ml			×
GRO coil high	2500 majord			

VPH CC = 5uL Std. 1 VPH LCS = 5uL Std. 3 VPH Samples = 5uL Std. 2

Method (Circle): MADEP-VPH-98-1

MEDEP 4.2.17

(SW846 8015(M)

Date	In	it.	Sample	Amt.	SP.	Ī	Result	Dil	Y/I	1	Viethod	рН	Comments
	<u> </u>		Name	Purged			File						5
11-72-13	7,	R	CV 175	5ml	5	96	12198	1	17	(28	08017B	~	12 13 480 -11 (D)
<b> </b>			<u> </u>	20 M	6	<u> </u>	199	1	$\perp \downarrow$				
	Ц		<del>4 -3</del>		7		700					_	
			869046-1		8		701		$\coprod$			-	
			<u> </u>		9		207		$\coprod$			_	
1)	Ш		-3		10		703		$\coprod$			<u>ب</u>	
11-23-13	Ц		-4		11		Zoy		Ш			_	
	Ц		1 -6		12		705		Ш			_	
			W9134886-8		13		Z06		Ш			_	
			U -9	4	14		707						
			Work	5.2	15		Z08						
4	4	-	C170		16	1	209	4	1		4		WG134886-12
11-23-13	ル	R	CV100/70	SML	١	961	44001	١	4	CROP	2017 ABIC	_	134901-12 136134901-6 136134335-13(b) 136134335-13(b) 136134335-13(b)
	1		UPN SID	$\downarrow$	Z		50	1	1		7		ME184903-4 (A) 516
			WG134856-18A	ROS	3		63		1	GRE	16017B	-	
			W6134924-1	[	Ч		04			GRO	301) A/C		NG134903-1 (a)
			2- \		5		65		Ш		1		1 -6.
			J -3		\e		06		Ш				1 -3 1
		Ц	W613486-4		7		07		Ш	GRO	BOIDB		spikel
		Ц	1 -5		9		NO X		Ц		<u> </u>		
		Ц	-6		9		09					_	
		Ц	9 7	4	10	$\perp$	10		9	<u> </u>	1		
			Water	5ML	JK3				N	Olo	BOITC	Ì	
				<u> </u>	124		12		N				
	_	$\dashv$	SC 8908-8	20 W	12/11	2	13	$\perp$	7				
		$\sqcup$	d -1	<u> </u>	1414	73	14	_	1	<u> </u>			was -
4			CV 2450/175	5~L	场份	1	15	火			AHB	_	N TWG 134804-7 (2)
11-54-13		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	369002-1	70.J	1614	$\perp$	16	N	Ш			_	N TWG 134880-41(B)
	\		568999-1		15		<u>ורנ</u>	41	Q	<u> </u>	<u> </u>		(P) c.0

Std. Name	Conc.	Std. Code	Std. Code	\ 
VPH Cal mix		GCV 3/3/	GCV'	
VPH Surr. mix		GCV	GCV	
VPH LCS mix		GCV	GCV	
	250 ug/mL Total	GCV 3127	GCV	<sub>(</sub>
GRO Surr. Mix		GCV 3128	GCV	
GRO LCS mix	250 ug/mL Total	GCV	GCV	

VPH CC = 5uL Std. 1 VPH LCS = 5uL Std. 3 VPH Samples = 5uL Std. 2

Method (Circle): MADEP-VPH-98-1

MEDEP 4.2.17

SW846 8015(M)

Date	lnit.	Sample	Amt.	SP.	Result	Dil.	Y/N	Method	рΗ	Comments
		Name	Purged	#	File			750 50		
11-24-13	J.P	56809-13	202	10	96440 18	1	7	GR08017C		
7	1	CN 100/70	5ml		V 19	1		<u> </u>		NT WE 134904-8
11-25-13	J&	CV 100	5mL	<u> </u>	20		7	GROBOTC/A	1	W6134907-6(0)
		UPN STD	1	2	21			\	~	SW#1
		W134904-12A	20 ul	3	22	N.		J	~	Thit WG134903-14/01
		S69602-18A		H	23			G108017C	_	Ü
	ï	56-8999-1 RA		5	24		1		_	
		1 -4		١	25		7			
		ー対		と	26					
		V -78		3	7,7				_	
		WG134904-4		4	78					
		1 15		5	4)			4		
		569044-1		ځ	30			C1208017A		
		1 -2	1	7	31				_	
		CV 250	5mL	8	32			GROBOI) A+C		WG134904-10 WG134903-7 (01)
		S69044-3	70 J	9	33			0808017A		P to coufirm
		7		10	34					
$\sim$		1-3			. 35				)	981 matex
11-1613		-9		12	36				}	
		<b>-</b> ∂.		13	37				1	
		78		14	38				_	
		7	7	15	391				)	SOMMAN
7	7	CV 100	5ML	16	40	1		1		NT W-13 4903-8
11-26-13	7 CP	CV 100	Sml	١	( 41	(	7	GROBOTIC +A		136133144-6
	1	VPN STD		Z	42		Y	MOBOTIC	~	5ul#1
		W6134963-180		3	43		7	↓ A		-
		NG 1851441	5ML	4	74		7	GROBODOTA		WC135145-1
		~2		1	45		4		-	1 -2
4	ſ	-3	4	۷	J 46	1	7		_	1 -3

Std. Name	Conc.	Std. Code	Std. Code	
VPH Cal mix	50 ug/ml	GCV 3131	GCV	V
VPH Surr. mix	100 ug/ml	GCV	GCV	V
VPH LCS mix	100 ug/ml	GCV	GCV	
GRO Cal mix	250 ug/mL Total	GCV 312)	GCV	G
GRO Surr. Mix	50 ug/mL	GCV 312名	GCV	G
GRO LCS mix	250 ug/mL Total	GCV 3129	GCV	G

VPH CC = 5uL Std. 1 VPH LCS = 5uL Std. 3 VPH Samples = 5uL Std. 2

Method (Circle): MADEP-VPH-98-1 (MEDEP 4.2.17) SW846 8015(M)

Date	١,	nit.	Sample	Amt.	SP.	Result	Dil.	Y/N	Method	рН	Comments
Julio	"	****	Name	Purged	1	File	_,	'''`	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
11-26-13	Ī	B	5690443PA	ZOW		9GKY 047	T	7	CROBO17A		CONFILMS
1		<u>~,</u> 1	SG9180/11 A		4	1 48	1	4		42	
	┢	╁	569057-1 1	1	5	1 49		<u> </u>		1	
	╁				u	60		H		$\dag \uparrow$	
	┝	-	1 3 E		7	51				++	
	├				<del>                                     </del>	37		7	~0° v v v v v v	廿	
	┞	<u> </u>	569002-12 A	<del>  </del>	8	33			02080176	↓	126135144 -7 RB
	┞	<del> </del>	CV 250		9			17	GROBOLT A+C		
<del></del>	L		5628999-12 A		10	54	-		GROBOTIC	42	r.B
7000	_	-	J -13		11	55		<del>                                     </del>		H	18
N-27-13	_	_	569178-24		17	56				┼┤-	RB
	_	_	1 -75		13	57				₩.	/TB
<b></b>	L		569179-11	<b> </b>	14	138					P.B.
	L		1 134		15	591		7		V	TB
V		4	CN 100	1	16	160	1	7	4	_	WLREY MAISSIAZ-C
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	Г					***************************************					
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	$\vdash$					<u>                                     </u>				<del> </del>	
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								<u> </u>		<u></u>	

Std. Name	Conc.	Std. Code	Std. Code	
1 VPH Cal mix		GCV	GCV	
2 VPH Surr. mix		GCV	GCV	
3 VPH LCS mix	100 ug/ml	GCV	GCV	
4 GRO Cal mix		GCV 3127	GCV	
5 GRO Surr. Mix		GCV 3127	GCV	
6 GRO LCS mix	250 ug/mL Total	GCV	GCV	
7				
88				

VPH CC = 5uL Std. 1 VPH LCS = 5uL Std. 3 VPH Samples = 5uL Std. 2

	——————————————————————————————————————						- " T				1	- 1	- 1	- [	1	1
Comments		TB				SV 8999-4MS	05Wh-		22	4	2					
Method	2012 600	7														>
Surrogate ID and Volume (µL)	5	7	と													
Spike ID and Volume (µL)	22	7	とな	12.5 W AM 3656	)		7	*	2							V
Volume (mL) Methanol Mor	0	->	01	-		:										7
Sample Weight (g)	757	0.00	(0.03	26.6	(0.0)	79.6	6		5	1		8.5		77 0 77	9 K/P. 1 822 -	8.79
Sample #	9696166-4 B	39- )	1261 34903-1 120001-1	70	12 12 12 12 12 12 12 12 12 12 12 12 12 1	19.6 annount 15/19/11	7	7 2 2 2	Co. 61 0 1/2012 A	*	98899-1 K	せゲー	-7.3 A	\$ 7.7	822-1	88902-18
Analyst	8	-	0	3		-	+									->
Date of Sample Preparation	7	1	11-72-13													7

GC-012 - Revision 1 - 08/18/10

OAGC278

Comments													\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	512
Method	X015, (400)	2 -							<del>                                     </del>				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	711 113
Surrogate ID and Volume (µL)	42								7					
Spike ID and Volume (µL)	よって													
Volume (mL) Methanol ∑or DI Water □	0								<b>-</b>					
Sample Weight (9)	12.10	N.K.	12,61	13.61	01.51	11.86	12.2S	SU2)	KB:21					
Sample #	Sc9044-1c	1-1	27	J.	٧,	9	-7	28	167					
Analyst Initials	3/5								7			$\forall$		
Date of Sample Preparation	21-22-1								7					

GC-012 - Revision 1 - 08/18/10

KATAHDIN ANALYTICAL SERVICES Organics Vial Prep Log

Methods: SW8260 SW8015 ME DEP 4.2.17 MA DEP VPH

x |

9		Vial	Vial +	Vial + Preservative +	Sample Weight		Precentative	ē. ē.	Prese	Preservative	Sample Name	Comments
11-8-13	Analyst 1	76600	7/0,90	Sample (8)	(A)	7 10	MEOH	MEOH / NAHSO4	5 /	(°		
	<u> </u>	76601	37,00			// IG	DI / MEOH	/ NaHSO4	2 /	10		
		76602	36,84			/ [0	MEOH	DI / MEOH / NaHSO4	5 /	9		-
		76603	36.84			7 10	MEOH	DI / MEOH / NaHSO4	2	9		
		76604	37.02			<u>ا</u>	рі / МЕОН	/ NaHSO4	2 /	5		
		76605	36.97	50.13	02/1/2	/ IO	DI / MEOH	/ NaHSO4	5 /	9	25-44065c	
		76606	36.81			ر ت	DI / MEOH	/ NaHSO4	2 /	9		
		76607	36,75			/ ה	DI / MEOH	/ NaHSO4	5	9		
		76608	34.71	<b>48,89</b>	\n\*\^[	/ IO	/ MEOH	/ NaHSO4	5	10	25-744P22	
		76609	36.54	48.64	12.10	۵	MEOH	/ NaHSO4	Ŋ	9	SG9044-1 C	
		76610	36.72			ō	MEOH	/ NaHSO4	ટ	9		
		76611	36.90	h).03	13.24	DI	МЕОН	/ NaHS04	2	10	36-400495	
		76612	36.93	79.65 1	12.73		MEOH	/ NaHSO4	5	10	569044-8C	
		76613	36.86	11. ph	5°C'Z1	IO	МЕОН	/ NaHSO4	5	10	2 ( - را	
		76614	36.91	LL'8h	11.86	ō	MEOH	/ NaHSO4	5	19	1-60	
		76615	36.94	55.05	13.61	百	MEOH	/ NaHSO4	2	6	25-440695	
		76616	36.85			٥	MEOH	/ NaHSO4	5	10		
		76617	36.83	hal bh	12.81	ū	MEOH	/ NaHSO4	5	10	832430	Š
		76618	36.90			ä	MEOH	/ NaHSO4	22	10		
	7	76619	36.61			) IO	/ MEOH	/ NaHSO4	S.	10/		
7 120 04	40 ml 1/2/1 m 04 #	10001	DUGIS-34VF				)			>		
MeOH Lot #:	10 EXT #	LEN ICL							ā	reserva	DI Preservative = Deionized Water +Stirbar	Stirbar
NaSO4 Lot #:	ot #:							NaHSC	34 Prese	rvative	NaHSO4 Preservative = 20% NaSO4 Solution + stirbar	stirbar

# **METALS DATA**



### METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	Spiked sample recovery not within control limits.
*	Duplicate sample analysis not_within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.  Note: All results reported as "U" MDL have a greater rate for false negatives, i.e. greater than 1%, than those results reported as "U" PQL/LOQ or "U" LOD.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

#### COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services SOW No. SW846 SDG Name: WE40-1 Lab Sample ID Client Field ID SG9180-011 IDW-GW-112113 Were ICP interelement corrections applied? Yes Yes Were ICP background corrections applied? If yes - were raw data generated before No application of background corrections? Comments: I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. Signature: Edward V. Mongan

Name: Edward A. Mongan

Date: December 3, 2013

Title: Sen: or Analyst Date:

**COVER PAGE - IN** 

## 1 INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services Client Field ID: IDW-GW-112113

Matrix: WATERSDG Name:WE40-1Percent Solids: 0.00Lab Sample ID: SG9180-011

 $\textbf{Concentration Units:} \ ug/L$ 

							AD	JUSTED	
CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	5.0	U		P	1	8.0	1.43	5.0
7440-39-3	BARIUM, TOTAL	36.2			P	1	5.0	0.23	3.0
7440-43-9	CADMIUM, TOTAL	3.0	U		P	1	5.0	0.05	3.0
7440-47-3	CHROMIUM, TOTAL	0.52	J		P	1	10	0.36	4.0
7439-92-1	LEAD, TOTAL	4.0	U		P	1	5.0	1.07	4.0
7439-97-6	MERCURY, TOTAL	0.10	U		CV	1	0.20	0.01	0.10
7782-49-2	SELENIUM, TOTAL	7.0	U		P	1	10	2.36	7.0
7440-22-4	SILVER, TOTAL	4.0	U		P	1	10	0.27	4.0

**Comments:** 

## **QC Summary Section**

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: ICV SAMPLE: CCV

File: HGK25A	Nov	25, 2013	14:02	File: HGK25A	Nov	25, 2013	14:08
Analyte	True	Found	%R (1)	Analyte	True	Found	%R (1)
MERCURY	6.0	6.42	107.0	MERCURY	5.0	5.07	101.4

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: CCV SAMPLE: CCV

File: HGK25A	Nov	25, 2013	14:33	File: HGK25A	Nov	25, 2013	15:00
Analyte	True	Found	%R (1)	Analyte	True	Found	%R (1)
MERCURY	5.0	5.70	114.0	MERCURY	5.0	4.88	97.6

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: CCV SAMPLE: CCV

File: HGK25A	Nov	25, 2013	15:25	File: HGK25A	Nov	25, 2013	15:51
Analyte	True	Found	%R (1)	Analyte	True	Found	%R (1)
MERCURY	5.0	5.79	115.8	MERCURY	5.0	5.78	115.6

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

**SAMPLE: CCV** 

File: HGK25A	Nov	25, 2013	16:17
Analyte	True	Found	%R (1)
MERCURY	5.0	5.19	103.8

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: ICV SAMPLE: CCV

File: IGL02A	Dec	202, 2013	15:55	File: IGL02A	Dec	202, 2013	16:32
Analyte	True	Found	%R (1)	Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10330.00	103.3	ALUMINUM	12500.0	12460.00	99.7
ARSENIC	400.0	396.10	99.0	ARSENIC	500.0	489.80	98.0
BARIUM	400.0	392.10	98.0	BARIUM	500.0	488.00	97.6
CADMIUM	400.0	392.20	98.0	CADMIUM	500.0	493.60	98.7
CALCIUM	10000.0	10350.00	103.5	CALCIUM	12500.0	12490.00	99.9
CHROMIUM	400.0	391.20	97.8	CHROMIUM	500.0	493.20	98.6
IRON	10000.0	10400.00	104.0	IRON	12500.0	12490.00	99.9
LEAD	400.0	404.90	101.2	LEAD	500.0	500.00	100.0
MAGNESIUM	10000.0	10420.00	104.2	MAGNESIUM	12500.0	12790.00	102.3
SELENIUM	400.0	396.70	99.2	SELENIUM	500.0	488.70	97.7
SILVER	400.0	389.30	97.3	SILVER	500.0	492.50	98.5

### 2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

**Lab Name: Katahdin Analytical Services SDG Name:** WE40-1

Concentration Units: ug/L

**SAMPLE: CCV** 

File: IGL02A	Dec	Dec 02, 2013	
Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12410.00	99.3
ARSENIC	500.0	483.90	96.8
BARIUM	500.0	485.80	97.2
CADMIUM	500.0	493.50	98.7
CALCIUM	12500.0	12450.00	99.6
CHROMIUM	500.0	495.80	99.2
IRON	12500.0	12400.00	99.2
LEAD	500.0	500.80	100.2
MAGNESIUM	12500.0	12770.00	102.2
SELENIUM	500.0	476.40	95.3
SILVER	500.0	498.50	99.7

# $$\operatorname{2C}$$ PQL STANDARD FOR AA AND ICP

**Lab Name: Katahdin Analytical Services SDG Name: WE40-1** 

Concentration Units: ug/L

SAMPLE: PQL

File: HGK25A	Nov 25, 2013		14:06
Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.21	105.0

# $$\operatorname{2C}$$ PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: PQL

File: IGL02A	Dec	Dec 02, 2013		
Analyte	TRUE	FOUND	% R	
ALUMINUM	300.0	312.00	104.0	
ARSENIC	8.0	6.62	82.8	
BARIUM	5.0	4.94	98.8	
CADMIUM	5.0	4.97	99.4	
CALCIUM	100.0	103.60	103.6	
CHROMIUM	10.0	9.64	96.4	
IRON	100.0	102.70	102.7	
LEAD	5.0	5.85	117.0	
MAGNESIUM	100.0	106.70	106.7	
SELENIUM	10.0	9.90	99.0	
SILVER	10.0	9.90	99.0	

**Lab Name: Katahdin Analytical Services SDG Name:** WE40-1

Concentration Units: ug/L

<b>SAMPLE:</b>	ICB	<b>SAMPLE:</b>	CCB	<b>SAMPLE:</b>	CCB

File: HGK25A Nov 25, 2013 14:04 File: HGK25A Nov 25, 2013 14:10 File: HGK25A Nov 25, 2013 14:36

Analyte	Result C	Analyte	Result C	Analyte	Result C
MERCURY	0.030 U	MERCURY	-0.030 U	MERCURY	0.030 U

**Lab Name: Katahdin Analytical Services SDG Name: WE**40-1

Concentration Units: ug/L

SAMPLE: CCB SAMPLE: CCB SAMPLE: CC	<b>SAMPLE:</b>
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File: HGK25A Nov 25, 2013 15:02 File: HGK25A Nov 25, 2013 15:27 File: HGK25A Nov 25, 2013 15:53

AnalyteResult CAnalyteResult CAnalyteResult CMERCURY0.030 UMERCURY0.030 UMERCURY0.030 U

**Lab Name: Katahdin Analytical Services SDG Name: WE**40-1

Concentration Units: ug/L

**SAMPLE: CCB** 

File: HGK25A Nov 25, 2013 16:19

Analyte	Result C
MERCURY	0.030 U

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

<b>SAMPLE:</b>	<b>ICB</b>		<b>SAMPLE:</b>	CCB		<b>SAMPLE:</b>	CCB	
File: IGL02A	Dec 02, 2013	15:59	File: IGL02A	Dec 02, 2013	16:37	File: IGL02A	Dec 02, 2013	17:32
Analyte	Result	C	Analyte	Result	C	Analyte	Result	C
ALUMINUM	16.800	U	ALUMINUM	16.800	U	ALUMINUM	16.800	U
ARSENIC	2.314	J	ARSENIC	2.404	J	ARSENIC	1.540	U
BARIUM	0.310	U	BARIUM	0.310	U	BARIUM	0.310	U
CADMIUM	0.070	U	CADMIUM	0.070	U	CADMIUM	0.070	U
CALCIUM	8.730	U	CALCIUM	8.730	U	CALCIUM	8.730	U
CHROMIUM	0.410	U	CHROMIUM	0.410	U	CHROMIUM	0.410	U
IRON	3.950	U	IRON	3.950	U	IRON	3.950	U
LEAD	1.040	U	LEAD	1.040	U	LEAD	1.040	U
MAGNESIUM	7.720	U	MAGNESIUM	7.720	U	MAGNESIUM	7.720	U
SELENIUM	5.093	J	SELENIUM	3.226	J	SELENIUM	4.413	J
SILVER	0.540	U	SILVER	0.540	U	SILVER	0.540	U

#### 3P PREPARATION BLANKS

**Lab Name: Katahdin Analytical Services** Sample ID: PBWGK25HGW2

Matrix: WATER SDG Name: WE40-1

**QC Batch ID:** GK25HGW2

Analyte	RESULT	C	
MERCURY	0.010	J	

#### 3P PREPARATION BLANKS

 Lab Name: Katahdin Analytical Services
 Sample ID: PBWGK26ICW2

Matrix: WATER SDG Name: WE40-1

QC Batch ID: GK26ICW2

Analyte	RESULT	С	
ARSENIC	5.0	U	
BARIUM	3.0	U	
CADMIUM	3.0	U	
CHROMIUM	4.0	U	
LEAD	4.0	U	
SELENIUM	7.0	U	
SILVER	4.0	U	

#### 4

#### ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

Concentration Units: ug/L

SAMPLE: ICSA SAMPLE: ICSAB

File: IGL02A	De	ec 02, 2013	16:23	File: IGL02A	De	ec 02, 2013	16:28
Analyte	TRUE	FOUND	% R	Analyte	TRUE	FOUND	% R
ALUMINUM	500000	509900	102.0	ALUMINUM	500000	490700	98.1
ARSENIC	0	2		ARSENIC	100	98	98.0
BARIUM	0	0		BARIUM	500	482	96.4
CADMIUM	0	1		CADMIUM	1000	893	89.3
CALCIUM	500000	478100	95.6	CALCIUM	500000	458900	91.8
CHROMIUM	0	-1		CHROMIUM	500	452	90.4
IRON	200000	187100	93.5	IRON	200000	183700	91.8
LEAD	0	-1		LEAD	50	42	84.0
MAGNESIUM	500000	452800	90.6	MAGNESIUM	500000	443900	88.8
SELENIUM	0	3		SELENIUM	50	44	88.0
SILVER	0	2		SILVER	200	203	101.5

#### 7 LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services Sample ID: LC2WGK25HGW2

Matrix: WATER SDG Name: WE40-1

**QC Batch ID:** GK25HGW2

Analyte	TRUE	FOUND	% R	LIMIT	S (%)
MERCURY	5.00	4.75	95.0	80	120

#### 7 LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services Sample ID: LCSWGK25HGW2

Matrix: WATER SDG Name: WE40-1

**QC Batch ID:** GK25HGW2

Analyte	TRUE	FOUND	% R	LIMIT	S (%)
MERCURY	5.00	5.58	111.6	80	120

#### 7 LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services Sample ID: LCSWGK26ICW2

Matrix: WATER SDG Name: WE40-1

**QC Batch ID:** GK26ICW2

Analyte	TRUE	FOUND	% R	LIMITS (	%)
ARSENIC	100.00	100.30	100.3	80	120
BARIUM	2000.00	1979.00	99.0	80	120
CADMIUM	250.00	257.50	103.0	80	120
CHROMIUM	200.00	198.10	99.0	80	120
LEAD	100.00	101.80	101.8	80	120
SELENIUM	100.00	101.00	101.0	80	120
SILVER	50.00	49.59	99.2	80	120

### 7D LABORATORY CONTROL SAMPLE DUPLICATES

**Lab Name: Katahdin Analytical Services** 

Matrix: WATER SDG Name: WE40-1

QC Batch ID: GK25HGW2 Lab Sample ID: LCSWGK25HGW2

**Concentration Units:** ug/L

Analyte	Control Limit (%)	LCS Result	LCS Dup. Result	RPD(%)	Q
MERCURY	20.0	5.58	4.75	16.0	

### 10 INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services Instrument Code: H

**Instrument Name:** CETAC M6100 **Date:** 1/30/2013

	Concent	ration Units	: ug/L
Analyte	CRDL	IDL	M
MERCURY	0.20	0.03	CV

### 10 INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical ServicesInstrument Code: IInstrument Name: THERMO ICAP 6500Date: 5/21/2012

Analyte	CRDL	IDL	M
ALUMINUM	300	16.80	P
ARSENIC	8.0	1.54	P
BARIUM	5.0	0.31	P
CADMIUM	5.0	0.07	P
CALCIUM	100	8.73	P
CHROMIUM	10	0.41	P
IRON	100	3.95	P
LEAD	5.0	1.04	P
MAGNESIUM	100	7.72	P
SELENIUM	10	2.60	P
SILVER	10	0.54	P

### 10 LIMITS of DETECTION

Lab Name: Katahdin Analytical Services Instrument Code: H

**Instrument Name:** CETAC M6100 **Date:** 2/9/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
MERCURY	0.10	ug/L	CV	SW846 7470A / SW846 7470A

### 10 LIMITS of DETECTION

Lab Name: Katahdin Analytical ServicesInstrument Code: IInstrument Name: THERMO ICAP 6500Date: 1/19/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.00	ug/L	P	SW846 3010A / SW846 6010C
BARIUM	3.00	ug/L	P	SW846 3010A / SW846 6010C
CADMIUM	3.00	ug/L	P	SW846 3010A / SW846 6010C
CHROMIUM	4.00	ug/L	P	SW846 3010A / SW846 6010C
LEAD	4.00	ug/L	P	SW846 3010A / SW846 6010C
SELENIUM	7.00	ug/L	P	SW846 3010A / SW846 6010C
SILVER	4.00	ug/L	P	SW846 3010A / SW846 6010C

### 10 METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services Instrument Code: H

**Instrument Name:** CETAC M6100 **Date:** 2/9/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.01	ug/L	CV	SW846 7470A / SW846 7470A

### 10 METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical ServicesInstrument Code: IInstrument Name: THERMO ICAP 6500Date: 1/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.43	ug/L	P	SW846 3010A / SW846 6010C
BARIUM	0.23	ug/L	P	SW846 3010A / SW846 6010C
CADMIUM	0.05	ug/L	P	SW846 3010A / SW846 6010C
CHROMIUM	0.36	ug/L	P	SW846 3010A / SW846 6010C
LEAD	1.07	ug/L	P	SW846 3010A / SW846 6010C
SELENIUM	2.36	ug/L	P	SW846 3010A / SW846 6010C
SILVER	0.27	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

SDG Name: WE40-1 Lab Name: Katahdin Analytical Services

**Date:** 8/21/2013

Instrument ID: I Instrument Name: THERMO ICAP 6500

	Wavelength			П	nterelemen	Interelement Correction Factors for:	ectors for:							
Analyte	(mm)	Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	Λ
ALUMINUM	396.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
ANTIMONY	206.83	0.0000170	0.0	0.0000260	0.0	-0.0001490	0.0119000	0.0	0.0	0.0		-0.0009470	0.0	-0.0006030
ARSENIC	189.04	-0.0000008	0.0	-0.0001510	0.0	0.0	0.0000970	0.0	0.0	0.0		0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	-0.0006860	0.0003880
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000610	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.00000800	0.0000910	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	-0.0011000	0.0	0.0	0.0		0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	0.0000018	0.0	0.0	0.0	0.0	0.0	0.0001110		0.0	0.0	0.0000720
COBALT	228.62	0.0	0.0	0.0000130	0.0	0.0	-0.0001800	0.0	0.0	0.0		0.0002140	0.0023400	0.0
COPPER	327.40	0.0000110	0.0	-0.0000055	0.0	0.0	0.0	0.0	0.0	0.0		0.0	-0.0027300	0.0003110
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
LEAD	220.35	-0.0001230	0.0	0.0000180	0.0	0.0	-0.0005800	0.0000540	-0.0001440	0.0		0.0002080	0.0000970	0.0
LITHIUM	87.079	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000870	0.0	0.0	0.0	0.2003000	0.0	0.0		0.0	0.0007070	0.0
MANGANESE	257.61	0.0000010	0.0	0.0000150	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0001080	0.0	0.0	0.0		0.0	0.0	-0.0001920
NICKEL	231.60	0.0	0.0	-0.0000460	0.0	0.0	0.0	-0.0001380	0.0	0.0		0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
SELENIUM	196.09	-0.0000100	0.0	-0.0000078	0.0	-0.0001750	0.0	0.0001290	0.0	0.0007680		0.0	0.0	-0.0002070
SILICON	251.61	0.0	0.0	-0.0001700	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0009940	0.0
SILVER	328.07	0.0	0.0	-0.0002090	0.0	0.0	0.0	0.0	0.0	0.0		0.0	-0.0003990	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
THALLIUM	190.86	0.0000066	0.0	0.0000078	0.0	0.0	0.0	0.0024400	-0.0001610	-0.0017000		0.0	-0.0011200	-0.0011500
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001290	0.0	0.0	0.0		0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000180	0.0	0.0	-0.0048000	0.0	0.0	-0.0025100		0.0	0.0007110	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0011400	0.0	0.0	0.0		0.0	0.0	0.0

# **FORM XI - IN**

#### 12 ICP LINEAR RANGES

Lab Name: Katahdin Analytical ServicesInstrument Code: IInstrument Name: THERMO ICAP 6500Date: 8/21/2013

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	1000000	P
ARSENIC	45.00	20000	P
BARIUM	5.00	20000	P
CADMIUM	45.00	20000	P
CALCIUM	5.00	1000000	P
CHROMIUM	10.00	20000	P
IRON	5.00	500000	P
LEAD	45.00	20000	P
MAGNESIUM	45.00	500000	P
SELENIUM	45.00	20000	P
SILVER	10.00	2000	P

#### 13 PREPARATION LOG

Lab Name: Katahdin Analytical Services QC Batch ID: GK25HGW2

Matrix: WATER SDG Name: WE40-1

**Method:** CV **Prep Date:** 11/25/2013

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LC2WGK25HGW2	LC2WGK25HGW2	0.025	0.025	
LCSWGK25HGW2	LCSWGK25HGW2	0.025	0.025	
PBWGK25HGW2	PBWGK25HGW2	0.025	0.025	
IDW-GW-112113	SG9180-011	0.025	0.025	G

#### 13 PREPARATION LOG

Lab Name: Katahdin Analytical Services QC Batch ID: GK26ICW2

Matrix: WATER SDG Name: WE40-1

**Method:** P **Prep Date:** 11/26/2013

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWGK26ICW2	LCSWGK26ICW2	0.05	0.05	
PBWGK26ICW2	PBWGK26ICW2	0.05	0.05	
IDW-GW-112113	SG9180-011	0.05	0.05	G

#### 14 ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

**Instrument ID:** CETAC M6100 File Name: HGK25A

**Date:** 11/25/2013 **Method:** CV

Sandand #1 (0.2 p	Lab Sample ID	Client ID	D.F.	Time	Elements
Standard #1 (0.2 p	Zuo Sumple IZ		2111		
Standard #1 (0.2 p	Calibration Blank		1	13:49	Hg
Sunciser 18 (10 p			1		
Standard 44 5 (10.0   1   14:00   14:00   14:00   16	Standard #2 (0.5 p		1	13:53	
Standard 44 5 (10.0   1   14:00   14:00   14:00   16	Standard #3 (1.0 p		1	13:55	- Hg
Sandard 85 (10.0   1   14.00   HG     CV			1	13:57	
ICV			1	14:00	Hg
PQL			1		HG
CCV         1         14/08         HG           CCB         1         14/10         HG           ZZZZZZ         1         14/12         14/14           ZZZZZZ         1         14/14         14/19           ZZZZZZ         1         14/19         14/21           ZZZZZZ         1         14/21         14/21           ZZZZZZ         1         14/25         14/25           ZZZZZZ         1         14/26         14/29           ZZZZZZ         1         14/29         14/29           CCV         1         14/33         HG           ZZZZZZ         1         14/40         14/40           ZZZZZZ         1         14/40         14/40           ZZZZZZ         1         14/42         14/40           ZZZZZZ         1         14/46         14/46           ZZZZZZ         1         14/46         14/46         14/46           ZZZZZZ         1         14/49         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46         14/46	ICB		1	14:04	HG
CCB	PQL		1	14:06	HG
14-12   14-14   14-17   14-18   14-1	CCV		1	14:08	HG
14:14	CCB		1	14:10	HG
14:16     14:19	<u> </u>		1	14:12	
1   14:19	<u> </u>		1	14:14	
14-21   14-21   14-22   1	<u> </u>		1	14:16	
1	<u> </u>		1	14:19	
ZZZZZZ         1         14:25           ZZZZZZZ         1         14:29           CCV         1         14:33         HG           CCB         1         14:36         HG           ZZZZZZ         1         14:40	<u> </u>		1		
Table   Tabl	ZZZZZZ		1	14:23	
Table   Tabl	ZZZZZZ		1	14:25	
CCV         1         14:33         HG           CCB         1         14:38         HG           ZZZZZZZ         1         14:40         Telegraph           ZZZZZZZ         1         14:42         Telegraph           ZZZZZZZ         1         14:47         Telegraph         Telegraph           ZZZZZZZ         1         14:49         Telegraph	<u> </u>		1	14:27	
CCB       1       14:38       HG         ZZZZZZZ       1       14:49       HG         ZZZZZZZ       1       14:45       HG         ZZZZZZZ       1       14:47       HG         ZZZZZZZ       1       14:49       HG         ZZZZZZZ       1       14:51       HG         ZZZZZZZ       1       14:55       HG         ZZZZZZZ       1       15:00       HG         CCB       1       15:04       HG         ZZZZZZZ       1       15:04       HG         ZZZZZZZ       1       15:08       HG         LCSWGK25HGW2       1       15:08       HG         LCSWGK25HGW2       1       15:10       HG         LCZZZZZ       1       15:11       HG         ZZZZZZZ       1       15:17       ZZZZZZZ         1       15:19       HG       ZZZZZZZ         1       15:21       HG       ZZZZZZZ         1       15:23       HG       HG         CCV       1       15:25       HG         CCD       1       15:25       HG	<u> </u>		1	14:29	
1	CCV		1	14:33	HG
1	CCB		1	14:36	HG
1	<u>ZZZZZZ</u>		1	14:38	
Table   Tabl	<u>ZZZZZZ</u>		1	14:40	
Table   Tabl	<u> </u>		1	14:42	
Table   Tabl	ZZZZZZ		1	14:45	
ZZZZZZ       5       14:51         ZZZZZZ       1       14:53         ZZZZZZ       1       14:57         CCV       1       15:00       HG         CCB       1       15:02       HG         ZZZZZZ       1       15:04       TTTTTZ         ZZZZZZ       1       15:06       TTTTT         LCSWGK25HGW2       1       15:10       HG         LC2WGK25HGW2       1       15:12       HG         LC2WGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14       TTTTTZ         ZZZZZZZ       1       15:17       TTTTTZ         ZZZZZZZ       1       15:21       TTTTTZ         ZZZZZZ       1       15:23       TTTTTZ         CCV       1       15:25       HG         CCB       1       15:27       HG	<u> </u>		1	14:47	
ZZZZZZZ       1       14:53         ZZZZZZZ       1       14:57         CCV       1       15:00       HG         CCB       1       15:02       HG         ZZZZZZZ       1       15:04       HG         ZZZZZZZ       1       15:06       HG         LCSWGK25HGW2       1       15:10       HG         LC2WGK25HGW2       1       15:12       HG         LC2WGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14       TS         ZZZZZZZ       1       15:17       TS         ZZZZZZ       1       15:21       TS         ZZZZZZZ       1       15:23       TS         CCV       1       15:25       HG         CCB       1       15:27       HG	<u> </u>		1	14:49	
ZZZZZZZ       1       14:55         ZZZZZZZ       1       15:00       HG         CCB       1       15:02       HG         ZZZZZZZ       1       15:04	<u>ZZZZZZ</u>		5	14:51	
ZZZZZZZ       1       14:57         CCV       1       15:00       HG         CCB       1       15:02       HG         ZZZZZZZ       1       15:04       TESTANDARDA TORROW         LCSWGK25HGW2       1       15:08       HG         PBWGK25HGW2       1       15:10       HG         LC2WGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14       TESTANDARDA TORROW       TESTANDA TORROW         ZZZZZZZ       1       15:17       TESTANDA TORROW       TES	ZZZZZZ		1	14:53	
CCV       1       15:00       HG         CCB       1       15:02       HG         ZZZZZZ       1       15:04	<u>ZZZZZZ</u>		1	14:55	
CCB       1       15:02       HG         ZZZZZZZ       1       15:04         ZZZZZZZ       1       15:06         LCSWGK25HGW2       1       15:10       HG         PBWGK25HGW2       1       15:10       HG         LC2WGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14       Test of the control of the	<u>ZZZZZZ</u>		1	14:57	
ZZZZZZZ     1     15:06       LCSWGK25HGW2     1     15:08     HG       PBWGK25HGW2     1     15:10     HG       LC2WGK25HGW2     1     15:12     HG       ZZZZZZZ     1     15:14       ZZZZZZZ     1     15:17       ZZZZZZZ     1     15:19       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	CCV		1	15:00	HG
ZZZZZZZ     1     15:06       LCSWGK25HGW2     1     15:10     HG       PBWGK25HGW2     1     15:12     HG       ZZZZZZZ     1     15:14       ZZZZZZZ     1     15:17       ZZZZZZZ     1     15:19       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	CCB		1	15:02	HG
LCSWGK25HGW2       1       15:10       HG         PBWGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14       T         ZZZZZZZ       1       15:17       T         ZZZZZZZ       1       15:19       T         ZZZZZZZ       1       15:21       T         ZZZZZZZ       1       15:23       T         CCV       1       15:25       HG         CCB       1       15:27       HG	ZZZZZZ		1	15:04	
PBWGK25HGW2       1       15:10       HG         LC2WGK25HGW2       1       15:12       HG         ZZZZZZZ       1       15:14         ZZZZZZZ       1       15:17         ZZZZZZZ       1       15:19         ZZZZZZZ       1       15:21         ZZZZZZZ       1       15:23         CCV       1       15:25       HG         CCB       1       15:27       HG	ZZZZZZ		11	15:06	
LC2WGK25HGW2     1     15:12     HG       ZZZZZZZ     1     15:14       ZZZZZZZ     1     15:17       ZZZZZZZ     1     15:19       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	LCSWGK25HGW2		11	15:08	HG
ZZZZZZZ     1     15:14       ZZZZZZZ     1     15:17       ZZZZZZZ     1     15:19       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	PBWGK25HGW2		111	15:10	HG
ZZZZZZZ     1     15:17       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	LC2WGK25HGW2		111	15:12	HG
ZZZZZZZ     1     15:19       ZZZZZZZ     1     15:21       ZZZZZZZ     1     15:23       CCV     1     15:25     HG       CCB     1     15:27     HG	<u>ZZZZZZ</u>		1	15:14	
ZZZZZZZ         1         15:21           ZZZZZZZ         1         15:23           CCV         1         15:25         HG           CCB         1         15:27         HG	ZZZZZZ		1	15:17	
ZZZZZZZ         1         15:23           CCV         1         15:25         HG           CCB         1         15:27         HG	<u>ZZZZZZ</u>		1	15:19	
CCV         1         15:25         HG           CCB         1         15:27         HG	ZZZZZZ		1	15:21	
CCB 1 15:27 HG	<u>ZZZZZZ</u>		1	15:23	
	CCV		111	15:25	HG
	CCB		1	15:27	HG
<u>ZZZZZZ</u> 1 15:29	<u> </u>		1	15:29	
777777 1 15:32	ZZZZZZ		1	15:32	
<u>7777777</u> 5 15:34	ZZZZZZ		5	15:34	
<u>7777777</u> 1 15:36	ZZZZZZ		11	15:36	

#### 14 ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

**Instrument ID:** CETAC M6100 File Name: HGK25A

**Date:** 11/25/2013 **Method:** CV

Lab Sample ID	Client ID D.I	. Time	Elements
<u> </u>	1	15:38	
<u> </u>	1	15:40	
<u> 777777</u>	1	15:42	
<b>ZZZZZZ</b>	1	15:44	
ZZZZZZ	1	15:47	
<u> </u>	1	15:49	
CCV	1	15:51	HG
CCB	1	15:53	HG
<u>ZZZZZZ</u>	1	15:55	
ZZZZZZ	1	15:57	
ZZZZZZ	1	16:00	
SG9180-011	IDW-GW-112113 1	16:02	HG
<u> ZZZZZZ</u>	1	16:04	
<u> ZZZZZZ</u>	1	16:06	
<u> ZZZZZZ</u>	1	16:09	
ZZZZZZ	5	16:11	
<u>ZZZZZZ</u>	1	16:13	
<u>ZZZZZZ</u>	1	16:15	
CCV	1	16:17	HG
CCB	1	16:19	HG

#### 14 ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services SDG Name: WE40-1

**Instrument ID:** THERMO ICAP 6500 **File Name:** IGL02A

**Date:** 12/2/2013 **Method:** P

Lab Sample ID	Client ID	D.F.	Time			Elements		
Blank		1	15:46 AL	AS BA	CD CA CR	FE PB MG	SE	AG
Std 1		1	15:50 AL	AS BA	CD CA CR	FE PB MG	SE	AG
ICV		11	15:55 AL	AS BA	CD CA CR	FE PB MG	SE	AG
ICB		1	15:59 AL	AS BA	CD CA CR	FE PB MG	SE	AG
PQL		1	16:04 AL	AS BA	CD CA CR	FE PB MG	SE	AG
ZZZZZZ		11	16:08					
ZZZZZZ		1	16:13					
ICSA		1	16:23 AL	AS BA	CD CA CR	FE PB MG	SE	AG
ICSAB		1	16:28 AL	AS BA	CD CA CR	FE PB MG	SE	AG
CCV		1	16:32 AL	AS BA	CD CA CR	FE PB MG	SE	AG
CCB		1	16:37 AL	AS BA	CD CA CR	FE PB MG	SE	AG
LCSWGK26ICW2		1	16:41	AS BA	CD CR	РВ	SE	AG
PBWGK26ICW2		1	16:46	AS BA	CD CR	PB	SE	AG
SG9180-011	IDW-GW-112113	1	16:50	AS BA	CD CR	РВ	SE	AG
<u> ZZZZZZ</u>		50	16:55					
<u> </u>		250	17:00					
ZZZZZZ		50	17:04					
<u> ZZZZZZ</u>		50	17:09					
<u> </u>		50	17:14					
<u> </u>		50	17:18					
<u> </u>		50	17:23					
CCV		1	17:28 AL	AS BA	CD CA CR	FE PB MG	SE	AG
ССВ		1	17:32 AL	AS BA	CD CA CR	FE PB MG	SE	AG

### **Raw Data Section**

### KATAHDIN ANALYTICAL SERVICES, INC. METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: Cetac M	<u>16100 (H)</u> ANAI	LYST: <u>EA</u>	DATE: 1\-	25-13
FILE NAME: HG	425A	METHOD: CVA	A	REVIEWED
		245	.1	mm 112513
Analyte: Mercury		747	<u>o</u> KÁ	MON 1125-13 TAHDIN ANALYTICAL METALS SECTION
	1 - 1700	CLI		METALO
SnCI	2, MID 1500	<del>,</del>	er (List):	
		Out	ici (1.13t).	9-9-1 <sub>-10</sub> -1 <sub>10</sub> -1
STANDARDS USEI	<b>D</b> :			
Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
CalBlank/ICB/CCB	NIA	11-25-13	12-12-13	0.00 ug/L
Standard #1 / PQL				0.20 ug/L
Standard #2				0.50 ug/L
Standard #3				1.00 ug/L
Standard #4 / CCV				5.00 ug/L
Standard #5			V	10.00 ug/L
ICV	4		12-173	6.00 Myh_
		1 75-13		
	<b>T</b>	mm 11-25-13		
Additional Commen	ts and Notes:	• • · · · · · · · · · · · · · · · · · ·	**************************************	
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#### INSTRUMENT RUNLOG

Instrument: CETAC M6100

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Calibration Blank	1.0000	HGK25A	11/25/2013	13:49	EAM
Standard #1 (0.2 ppb)	1.0000	HGK25A	11/25/2013	13:51	EAM
Standard #2 (0.5 ppb)	1.0000	HGK25A	11/25/2013	13:53	EAM
Standard #3 (1.0 ppb)	1.0000	HGK25A	11/25/2013	13:55	EAM
Standard #4 (5.0 ppb)	1.0000	HGK25A	11/25/2013	13:57	EAM
Standard #5 (10.0 ppb)	1.0000	HGK25A	11/25/2013	14:00	EAM
CV	1.0000	HGK25A	11/25/2013	14:02	EAM
ICB	1.0000	HGK25A	11/25/2013	14:04	EAM
PQL	1.0000	HGK25A	11/25/2013	14:06	EAM
CCV	1.0000	HGK25A	11/25/2013	14:08	EAM
CCB	1.0000	HGK25A	11/25/2013	14:10	EAM
LCSWGK25HGW1	1.0000	HGK25A	11/25/2013	14:12	EAM
PBWGK25HGW1	1.0000	HGK25A	11/25/2013	14:14	EAM
SG8873-002	1.0000	HGK25A	11/25/2013	14:16	EAM
SG9160-001	1.0000	HGK25A	11/25/2013	14:19	EAM
SG9163-001	1.0000	HGK25A	11/25/2013	14:21	EAM
SG9170-001	1.0000	HGK25A	11/25/2013	14:23	EAM
LCSWGK25HGW3	1.0000	HGK25A	11/25/2013	14:25	EAM
PBWGK25HGW3	1.0000	HGK25A	11/25/2013	14:27	EAM
SG9092-001	1.0000	HGK25A	11/25/2013	14:29	EAM
CCV	1.0000	HGK25A	11/25/2013	14:33	EAM
ССВ	1.0000	HGK25A	11/25/2013	14:36	EAM
5G9092-002	1.0000	HGK25A	11/25/2013	14:38	EAM
SG9092-003	1.0000	HGK25A	11/25/2013	14:40	EAM
SG9092-004	1.0000	HGK25A	11/25/2013	14:42	EAM
SG9092-005	1.0000	HGK25A	11/25/2013	14:45	EAM
SG9092-006	1.0000	HGK25A	11/25/2013	14:47	EAM
SG9092-007	1.0000	HGK25A	11/25/2013	14:49	EAM
SG9092-007L	5.0000	HGK25A	11/25/2013	14:51	EAM
SG9092-007A	1.0000	HGK25A	11/25/2013	14:53	EAM
SG9092-007P	1.0000	HGK25A	11/25/2013	14:55	EAM
SG9092-007S	1.0000	HGK25A	11/25/2013	14:57	EAM
CCV	1.0000	HGK25A	11/25/2013	15:00	EAM
ССВ	1.0000	HGK25A	11/25/2013	15:02	EAM
SG9092-008	1.0000	HGK25A	11/25/2013	15:04	EAM
SG9141-001	1.0000	HGK25A	11/25/2013	15:06	EAM
LCSWGK25HGW2	1.0000	HGK25A	11/25/2013	15:08	EAM
PBWGK25HGW2	1.0000	HGK25A	11/25/2013	15:10	EAM
LC2WGK25HGW2	1.0000	HGK25A	11/25/2013	15:12	EAM
PBT1140A	1.0000	HGK25A	11/25/2013	15:14	EAM
SG8825-027T	1.0000	HGK25A	11/25/2013	15:17	EAM
SG8865-001	1.0000	HGK25A	11/25/2013	15:19	EAM
SG8865-002	1.0000	HGK25A	11/25/2013	15:21	EAM
SG8865-003	1.0000	HGK25A	11/25/2013	15:23	EAM

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
CCV	1.0000	HGK25A	11/25/2013	15:25	EAM
CCB	1.0000	HGK25A	11/25/2013	15:27	EAM
SG8865-004	1.0000	HGK25A	11/25/2013	15:29	EAM
SG8951-002	1.0000	HGK25A	11/25/2013	15:32	EAM
SG8951-002L	5.0000	HGK25A	11/25/2013	15:34	EAM
SG8951-002A	1.0000	HGK25A	11/25/2013	15:36	EAM
SG8951-002P	1.0000	HGK25A	11/25/2013	15:38	EAM
SG8951-002S	1.0000	HGK25A	11/25/2013	15:40	EAM
SG9041-005T	1.0000	HGK25A	11/25/2013	15:42	EAM
SG9041-006T	1.0000	HGK25A	11/25/2013	15:44	EAM
SG9041-007T	1.0000	HGK25A	11/25/2013	15:47	EAM
SG9041-008T	1.0000	HGK25A	11/25/2013	15:49	EAM
CCV	1.0000	HGK25A	11/25/2013	15:51	EAM
CCB	1.0000	HGK25A	11/25/2013	15:53	EAM
SG9041-009T	1.0000	HGK25A	11/25/2013	15:55	EAM
SG9041-010T	1.0000	HGK25A	11/25/2013	15:57	EAM
SG9133-001T	1.0000	HGK25A	11/25/2013	16:00	EAM
SG9180-011	1.0000	HGK25A	11/25/2013	16:02	EAM
LCSWGK25HGW4	1.0000	HGK25A	11/25/2013	16:04	EAM
PBWGK25HGW4	1.0000	HGK25A	11/25/2013	16:06	EAM
SG8951-001	1.0000	HGK25A	11/25/2013	16:09	EAM
SG8951-001L	5.0000	HGK25A	11/25/2013	16:11	EAM
SG8951-001A	1.0000	HGK25A	11/25/2013	16:13	EAM
SG8951-001P	1.0000	HGK25A	11/25/2013	16:15	EAM
CCV	1.0000	HGK25A	11/25/2013	16:17	EAM
CCB	1.0000	HGK25A	11/25/2013	16:19	EAM
SG8951-001S	1.0000	HGK25A	11/25/2013	16:22	EAM
SG8951-003	1.0000	HGK25A	11/25/2013	16:24	EAM
SG8951-004	1.0000	HGK25A	11/25/2013	16:26	EAM
SG8951-005	1.0000	HGK25A	11/25/2013	16:28	EAM
SG8951-006	1.0000	HGK25A	11/25/2013	16:30	EAM
SG8951-007	1.0000	HGK25A	11/25/2013	16:32	EAM
SG8951-008	1.0000	HGK25A	11/25/2013	16:35	EAM
SG8951-009	1.0000	HGK25A	11/25/2013	16:37	EAM
SG9181-001	1.0000	HGK25A	11/25/2013	16:39	EAM
CCV	1.0000	HGK25A	11/25/2013	16:43	EAM
CCB	1.0000	HGK25A	11/25/2013	16:45	EAM

#### Report Generated By CETAC QuickTrace

Analyst: metals

Worksheet file: C:\Program Files\QuickTrace\Worksheets\HGK25A.wsz

**Date Started:** 11/25/2013 1:41:45 PM

Comment:

### Results

Sample Name	Туре	Date/Time	Conc (ug/L)	μAbs	%RSD Flags	s DF
Calibration Blank Replicates -62.7 -26.6 -	STD 7.6 -3	11/25/13 01:49:32 pm 33.9	0.000	-35	55.45	1.00
Standard #1 (0.2 ppb)  Replicates 721.0 726.9 75	STD 7.3 77	11/25/13 01:51:38 pm 5.3	0.200	753	4.46	1.00
Standard #2 (0.5 ppb)  Replicates 1487.6 1525.0 14	STD 5.2 157	11/25/13 01:53:45 pm 74.0	0.500	1518	2.74	1.00
Standard #3 (1.0 ppb)  Replicates 3041.1 3087.4 31	STD 92.6 321	11/25/13 01:55:51 pm 10.6	1.000	3133	2.61	1.00
Standard #4 (5.0 ppb)  Replicates 15205.4 15431.4 155	STD 29.7 1559	11/25/13 01:57:59 pm 97.2	5.000	15441	1.11	1.00
Standard #5 (10.0 ppb)  Replicates 30330.5 30705.6 310	STD 54.6 3109	11/25/13 02:00:06 pm 98.4	10.000	30797	1.16	1.00
Calibration  Equation: A = 36.373 + 3077.143C  R2: 0.99997  SEE: 69.5951  Flags:		30,000 25,000 25,000 15,000 15,000 0 0 2 Cor	4 6 ncentration (ug	8 /L)	10	
ICV Replicates 19572.3 19796.4 198 % Recovery 107.03	ICV 89.4 199	11/25/13 02:02:15 pm 32.1	6.422	19798	3 0.81	1.00
ICB Replicates -51.4 -34.6	ICB 67.5 -	11/25/13 02:04:20 pm 19.1	-0.026	-43	3 48.38	1.00

Sample N	Name				Туре	Date/Time	Conc (ug/L)	μAbs	%RSD (	Flags	DF
	Replicates 6 Recovery	680.7 103.98	690.3	710.8	CRDL 623	11/25/13 02:06:26 pm 3.5	0.208	676	5.53		1.00
	Replicates 6 Recovery	15422.4 101.49	15598.8	15748.8	IPR 15834	11/25/13 02:08:33 pm i.1	5.074	15651	1.16		1.00
CCB R	Replicates	-50.0	-41.5	-53.5	CCB -78	11/25/13 02:10:39 pm 3.3	-0.030	-56	28.36		1.00
R	K25HGW1 Replicates & Recovery	16754.6 109.49	16562.5	16981.8	LCS 17231	11/25/13 02:12:45 pm .6	5.475	16883	1.71		1.00
PBWGK2 R	25HGW1 Replicates	-51.6	-53.1	-20.6	PBK -30	11/25/13 02:14:52 pm 0.8	-0.025	-39	40.91		1.00
SG8873-0 R	002 Replicates	83.6	53.9	118.4	UNK 113	11/25/13 02:16:59 pm :.1	0.018	92	32.29		1.00
SG9160-0 R	001 Replicates	11.8	-38.2	-13.8	UNK 11	11/25/13 02:19:06 pm .0	-0.014	-7	325.77		1.00
SG9163-0 R	001 Replicates	2.0	39.5	-0.6	UNK 2	11/25/13 02:21:13 pm :.4	-0.008	11	177.26		1.00
SG9170-0 R	001 Replicates	168.2	232.6	173.6	UNK 224	11/25/13 02:23:20 pm .6	0.053	200	16.79		1.00
R	K25HGW3 Replicates & Recovery	16211.9 103.91	16109.3	15888.2	LCS 15884	11/25/13 02:25:27 pm .0	5.195	16023	1.02		1.00
PBWGK2 R	25HGW3 Replicates	-19.3	-32.6	-6.9	PBK 3	11/25/13 02:27:35 pm s.1	-0.016	-14	110.91		1.00
SG9092-0 R	001 Replicates	-15.4	15.1	33.5	UNK 12	11/25/13 02:29:42 pm	-0.008	11	177.61		1.00

Sample N	lame				Туре	Date/Time	Conc (ug/L)	μAbs	%RSD	Flags	DF
	eplicates Recovery	17463.0 113.97	17563.9	17607.5	CCV 1765	11/25/13 02:33:54 pm 3.0	5.699	17572	0.46	Q	1.00
CCB Re	eplicates	-22.6	-65.6	-47.8	CCB -2	11/25/13 02:36:36 pm 1.6	-0.025	-39	53.94		1.00
SG9092-0 Re	002 eplicates	17.4	31.0	19.6	UNK -1	11/25/13 02:38:44 pm 4.7	-0.007	13	147.09		1.00
SG9092-0 Re	003 eplicates	-17.2	6.8	30.5	UNK -5	11/25/13 02:40:51 pm 4.4	-0.015	-9	421.22		1.00
SG9092-0 Re	004 eplicates	-4.5	17.0	-22.6	UNK 2	11/25/13 02:42:58 pm 6.0	-0.011	4	548.89		1.00
SG9092-0 Ri	005 eplicates	45.4	44.3	26.5	UNK 1	11/25/13 02:45:06 pm 6.8	-0.001	33	41.99		1.00
SG9092-0 R	006 Leplicates	-11.3	-74.7	-54.3	UNK	11/25/13 02:47:14 pm 6.8	-0.023	-33	112.80		1.00
SG9092-0 R	007 Replicates	31.1	0.4	61.2	UNK 5	11/25/13 02:49:22 pm 9.7	0.001	38	75.29		1.00
SG9092-(	007L Replicates	43.4	25.4	9.6	UNK	11/25/13 02:51:30 pm 3.4	-0.029	19	107.97		5.00
SG9092-	007A Replicates	2836.0	2891.6	2909.4	UNK 296	11/25/13 02:53:37 pm 4.1	0.931	2900	1.82	!	1.00
SG9092-	.007P Replicates	3641.4	3739.6	3724.2	UNK 365	11/25/13 02:55:45 pm 50.1	1.187	3689	1.36	i	1.00
SG9092-	-007S Replicates	2877.3	2901.0	2886.0	UNK 294	11/25/13 02:57:54 pm 43.2	0.931	2902	2 1.01		1.00

Sample N	lame				Type Date/Time	Conc (ug/L)	μAbs	%RSD F	Flags DF
	eplicates Recovery	14621.4 97.62	14756.8	14994.5	CCV 11/25/13 03:00:01 pm 15853.6	4.881	15057	3.67	1.00
CCB Re	eplicates	-56.1	<del>-</del> 12.9	-49.2	CCB 11/25/13 03:02:07 pm 10.4	-0.021	-27	116.17	1.00
SG9092-0 Re	008 eplicates	32.3	-50.7	7.5	UNK 11/25/13 03:04:15 pm -16.0	-0.014	-7	524.21	1.00
SG9141-(	001 eplicates	92.5	108.4	118.5	UNK 11/25/13 03:06:23 pm 136.2	0.025	114	16.09	1.00
R	(25HGW2 eplicates 5 Recovery	17138.7 111.57	17195.8	17278.6	LCS 11/25/13 03:08:31 pm 17195.1	5.578	17202	9 0.34	1.00
PBWGK2 R	25HGW2 eplicates	-77.8	-79.1	-90.8	PBK 11/25/13 03:10:40 pm -32.3	-0.035	-70	36.86	1.00
	25HGW2 eplicates Recovery	14417.0 95.06	14641.4	14804.1	LCS 11/25/13 03:12:48 pm 14785.4	4.753	14662	2 1.22	1.00
PBT1140 R	IA teplicates	26.6	-30.7	-2.5	UNK 11/25/13 03:14:57 pm 19.6	-0.011	3	3 794.04	1.00
SG8825-6 R	027T Replicates	1152.9	1162.0	1180.7	UNK 11/25/13 03:17:05 pm 1180.5	0.368	1169	1.19	1.00
SG8865-( R	001 Replicates	11.0	25.1	60.8	UNK 11/25/13 03:19:14 pm 0.3	-0.004	24	1 108.45	1.00
SG8865-	002 Replicates	72.2	34.5	-2.7	UNK 11/25/13 03:21:22 pm -6.2	-0.004	24	1 150.39	1.00
SG8865- R	-003 Replicates	81.1	43.3	93.1	UNK 11/25/13 03:23:31 pm 89.3	0.013	77	7 29.78	1.00

Page 4

Sample Name				Type Date/Time	Conc (ug/L)	μAbs	%RSD I	Flags DF
CCV Replicates % Recovery	17602.6 115.78	17511.6	17624.8	CCV 11/25/13 03:25:39 pm 18658.8	5.789	17849	3.04	1.00
CCB Replicates	2.9	-22.1	-57.3	CCB 11/25/13 03:27:44 pm -5.1	-0.018	-20	130.98	1.00
SG8865-004 Replicates	32.7	-13.7	51.9	UNK 11/25/13 03:29:54 pm -1.1	-0.006	17	173.03	1.00
SG8951-002 Replicates	6.9	-7.3	-5.6	UNK 11/25/13 03:32:02 pm -5.3	-0.013	-3	230.86	1.00
SG8951-002L Replicates	86.5	26.7	30.2	UNK 11/25/13 03:34:11 pm -12.1	-0.006	33	123.57	5.00
SG8951-002A Replicates	2821.7	2823.0	2870.5	UNK 11/25/13 03:36:20 pm 2966.9	0.921	2871	2.37	1.00
SG8951-002P Replicates	3669.0	3675.9	3643.2	UNK 11/25/13 03:38:29 pm 3685.1	1.180	3668	0.49	1.00
SG8951-002S Replicates	3781.1	3746.2	3730.9	UNK 11/25/13 03:40:39 pm 3660.9	1.200	3730	1.35	1.00
SG9041-005T Replicates	54.5	62.4	28.6	UNK 11/25/13 03:42:48 pm -2.7	0.000	36	82.40	1.00
SG9041-006T Replicates	-9.3	54.6	23.7	UNK 11/25/13 03:44:57 pm 41.6	-0.003	28	100.22	1.00
SG9041-007T Replicates	34.5	116.5	89.7	UNK 11/25/13 03:47:06 pm 36.3	0.011	69	58.59	1.00
SG9041-008T Replicates	4.9	34.2	110.4	UNK 11/25/13 03:49:16 pm 88.4	0.008	59	81.47	1.00

Page 5

Sample Name				Туре	Date/Time	Conc (ug/L)	μAbs	%RSD	Flags	DF
CCV Replicates % Recovery	17723.4 y 115.64	17805.8	17902.5	CCV 17880	11/25/13 03:51:23 pm 0.0	5.782	17828	0.45		1.00
CCB Replicates	-52.3	-32.3	-41.6	CCB -9	11/25/13 03:53:29 pm 1.1	-0.029	-54	47.59		1.00
SG9041-009T Replicates	1.5	33.7	15.5	UNK -1:	11/25/13 03:55:39 pm 3.8	-0.009	9	219.51		1.00
SG9041-010T Replicates	-26.7	15.8	-13.3	UNK -20	11/25/13 03:57:48 pm 0.2	-0.015	-11	169.19		1.00
SG9133-001T Replicates	106.8	131.1	85.6	UNK 149	11/25/13 04:00:29 pm 9.9	0.027	118	23.73		1.00
SG9180-011 Replicates	26.3	13.9	27.1	UNK 3:	11/25/13 04:02:39 pm 3.1	-0.004	25	32.07		1.00
LCSWGK25HGW4 Replicates % Recover	18219.6	17522.0	17003.2	LCS 1695	11/25/13 04:04:49 pm 1.8	5.651	17424	3.38		1.00
PBWGK25HGW4 Replicates	-25.8	-0.7	-132.2	PBK 2	11/25/13 04:06:59 pm 6.3	-0.023	-33	209.69		1.00
SG8951-001 Replicates	52.6	14.3	50.3	UNK 2	11/25/13 04:09:08 pm 7.6	0.000	36	50.91		1.00
SG8951-001L Replicates	-23.1	-20.8	13.0	UNK -	11/25/13 04:11:18 pm 5.0	-0.074	<b>-</b> ç	186.94		5.00
SG8951-001A Replicates	2994.5	3009.4	3044.6	UNK 301	11/25/13 04:13:28 pm 1.1	0.968	3015	0.70	)	1.00
SG8951-001P Replicates	3666.1	3597.5	3612.2	UNK 363	11/25/13 04:15:38 pm :1.7	1.167	3627	7 0.82	2	1.00

HGK25A.wsz Page 6

11/25/2013 4:48:16 PM

Sample Name				Туре	Date/Time	Conc (ug/L)	μAbs	%RSD F	Flags DF
CCV Replicates % Recovery	15212.7 103.80	15566.3	16246.0	CCV 1700	11/25/13 04:17:46 pm 1.5	5.190	16007	4.93	1.00
CCB Replicates	-28.8	-22.8	23.5	CCB	11/25/13 04:19:51 pm 0.3	-0.014	-7	336.37	1.00
SG8951-001S Replicates	3129.0	3106.7	3114.4	UNK 316	11/25/13 04:22:02 pm 9.9	1.005	3130	0.90	1.00
SG8951-003 Replicates	-2.4	-28.9	-33.9	UNK -3	11/25/13 04:24:12 pm 7.3	-0.020	-26	61.93	1.00
SG8951-004 Replicates	4.1	-19.0	39.5	UNK 4	11/25/13 04:26:22 pm 0.3	-0.007	16	178.23	1.00
SG8951-005 Replicates	5.9	55.0	-64.0	UNK -4	11/25/13 04:28:32 pm 5.6	-0.016	-12	440.55	1.00
SG8951-006 Replicates	1.7	-22.1	-33.5	UNK -3	11/25/13 04:30:43 pm 5.0	-0.019	-22	76.30	1.00
SG8951-007 Replicates	7.5	-22.9	-3.2	UNK 2	11/25/13 04:32:54 pm 3.6	-0.011	1	524.35	1.00
SG8951-008 Replicates	-24.5	26.2	39.5	UNK 2	11/25/13 04:35:04 pm 5.5	-0.006	17	' 168.80	1.00
SG8951-009 Replicates	-2.5	105.6	17.1	UNK S	11/25/13 04:37:14 pm 8.1	0.001	40	) 118.86	1.00
SG9181-001 Replicates	-8.2	30.8	18.4	UNK 1	11/25/13 04:39:25 pm 0.1	-0.008	13	3 128.30	1.00
CCV Replicates % Recover		17890.4	17978.8	CCV 1802	11/25/13 04:43:50 pm 20.8	5.811	17919	9 0.58	1.00

11/25/2013 4:48:16 PM HGK25A.wsz Page 7

### KATAHDIN ANALYTICAL SERVICES, INC. METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: Thermo ICAF	6500 ANALYS	ST: いて	ANALYSIS DAT	e: <u>lalaliz</u>
FILE NAME: IGLO		HOD:		
	ICP		ICP-MS	CVAA
REVIEWED	<b>□</b> 20	00.7	□ 200.8	<u> </u>
	团60	)10B	□ 6020	□ 747
ga-12-03-17	2. □ cı	LP	$\square$ CLP	$\square$ CLP
KATAHDIN ANALYTIC	AL Π			
METALS SECTION	! <u> </u>			
STANDARDS USED:				
Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal BIL, ICB, CCB	MW14578	11/14/13	11/14/14	Ougl
Cal Stcl	MW14589	11/18/13	2/18/14	vants by element
ICV	MW14588	11/18/13	12/30/13	
PQL	MW14598	11/19/13	2/19/14	
LRSI	MW14569	11/13/13	1,2/5/13	
LR52	MW14570	11/13/13	11/18/13	
ICSA	MW14590	1118/13	2/18/14	
ICSAB	MW14592	1/18/13	12/5//3	
CCV	MW14614	11/30/13	2/30/14	5mg/LY
internal Std	MWIUS86	1118/13	2)18/14	3/1/5/1
* Si expired a still valid in	<u> solution</u>	<u> </u>	au one o	<i></i>
		la la	2/13	
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### INSTRUMENT RUNLOG

**Instrument:** ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IGL02A	12/2/2013	15:46	NAT
Std 1	1.000	IGL02A	12/2/2013	15:50	NAT
ICV	1.000	IGL02A	12/2/2013	15:55	NAT
ICB	1.000	IGL02A	12/2/2013	15:59	NAT
PQL	1.000	IGL02A	12/2/2013	16:04	NAT
LRS1	1.000	IGL02A	12/2/2013	16:08	NAT
LRS2	1.000	IGL02A	12/2/2013	16:13	NAT
ICSA	1.000	IGL02A	12/2/2013	16:23	NAT
ICSAB	1.000	IGL02A	12/2/2013	16:28	NAT
CCV	1.000	IGL02A	12/2/2013	16:32	NAT
ССВ	1.000	IGL02A	12/2/2013	16:37	NAT
LCSWGK26ICW2	1.000	IGL02A	12/2/2013	16:41	NAT
PBWGK26ICW2	1.000	IGL02A	12/2/2013	16:46	NAT
SG9180-011	1.000	IGL02A	12/2/2013	16:50	NAT
SG8865-001	50.00	IGL02A	12/2/2013	16:55	NAT
SG8865-001L	250.0	IGL02A	12/2/2013	17:00	NAT
SG8865-001A	50.00	IGL02A	12/2/2013	17:04	NAT
SG8865-001D	50.00	IGL02A	12/2/2013	17:09	NAT
SG8865-001S	50.00	IGL02A	12/2/2013	17:14	NAT
SG8865-002	50.00	IGL02A	12/2/2013	17:18	NAT
SG8865-003	50.00	IGL02A	12/2/2013	17:23	NAT
CCV	1.000	IGL02A	12/2/2013	17:28	NAT
ССВ	1.000	IGL02A	12/2/2013	17:32	NAT
SG8865-004	50.00	IGL02A	12/2/2013	17:37	NAT
SG9049-001	1000.	IGL02A	12/2/2013	17:42	NAT
LCSWGK27ICW1	1.000	IGL02A	12/2/2013	17:46	NAT
PBWGK27ICW1	1.000	IGL02A	12/2/2013	17:51	NAT
SG9182-001	1.000	IGL02A	12/2/2013	17:55	NAT
SG9182-001L	5.000	IGL02A	12/2/2013	18:00	NAT
SG9182-001A	1.000	IGL02A	12/2/2013	18:05	NAT
SG9182-001P	1.000	IGL02A	12/2/2013	18:09	NAT
SG9182-001S	1.000	IGL02A	12/2/2013	18:14	NAT
SG9182-002	1.000	IGL02A	12/2/2013	18:18	NAT
CCV	1.000	IGL02A	12/2/2013	18:23	NAT
CCB	1,000	IGL02A	12/2/2013	18:27	NAT
SG9182-003	1.000	IGL02A	12/2/2013	18:32	NAT
SG9182-004	1.000	IGL02A	12/2/2013	18:36	NAT
SG9182-005	1.000	IGL02A	12/2/2013	18:41	NAT
SG9182-006	1.000	IGL02A	12/2/2013	18:46	NAT
SG9182-007	1.000	IGL02A	12/2/2013	18:50	NAT
SG9182-008	1.000	IGL02A	12/2/2013	18:55	NAT
LCSWGK27ICW2	1.000	IGL02A	12/2/2013	19:00	NAT
PBWGK27ICW2	1.000	IGL02A	12/2/2013	19:04	NAT
SG8951-001	1.000	IGL02A	12/2/2013	19:09	NAT

#### **Intensity Report**

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cquiD&a em	r: t 1	2/2/2	104 <b>8</b> : 3 P. <b>2</b> 0	M		Samp	lTypp e∶Sa ad	ti nr
Elem	Flags		Avg Un	its		Stddev	%RSD	Intensity Ratio
g <b>_32</b> \ 08	Α		0 000102 00 C	Ss	/ t .	0.900010 00	.1 1 53	.9 3 88
96 _3A1	R		0600203 0C	Ss	/ t .	0002130	9.4 03	9. 6 0 7
s9 <u>1</u> A18	Α		@10000 080 C	Ss	/ t .	06000B 00	4.64 7	.4 60 33
u 4 <u>2</u> A2 7	Α		090020 50 C	Ss	/ t .	0.600010 00	6. 9 1 7	. 232 5
B_ 9 <u>2</u> 0 8	Α		60 0001 2 0 C	Ss	/ t .	040000 000	.6 60 3 5	.499 5
Ba4 4_ 55	R		64010 80C	Ss	/ t .	0 00000 0800	.4 90 3 0	. 9 70 5
B e <u>1</u> 830	R		04003 70 C	Ss	/ t .	0 0 0 2011 0	6. <b>53</b>	4. 1 3 8
Ca _ <b>3</b> 58	R		66 0 010 00 C	Ss	/ t .	<b>9</b> 0003 70	4.2 38	-6. 69 0
C 66 <u>2</u> 2 5	Α		000103°0C	Ss	/ t .	<b>6</b> 0000 <b>5</b> 0	49. 1 5	41 7
C 6 <u>2</u> 2 o 8	Α		<b>96</b> 020 0 C	Ss	/ t .	0 000101 00	.6 3 3 5	.6 92 5
C 6 <u>2</u> r77	Α		000010 550 C	Ss	/ t .	0 00010 080	. 11 87	4. 08 5
Cu _ <b>32 37</b>	Α		0000022 00 C	Ss	/ t .	040000 000	.44 3	. 1 033
F <b>e</b> 99 <u>2</u> 5	R		0 010 102 C	Ss	/ t .	40 0001 2 0	4 .69 0	. 3 8 88
K_ 664_ 7	R		6060202 C	Ss	/ t .	09000 700	. 63 00	1 00 7
L6i _ 107	R		09000 580 C	Ss	/ t .	0.90010 80	. 2213	6 22 2
g <u>2</u> M20 5	Α		060003 70 C	Ss	/ t .	060003 00	9.6 9 8	433 7
6 <u>2</u> M <i>5</i> 7n	R		09000 800 C	Ss	/ t .	04000 500	6.4 0 7	.4 43 0
<u>2</u> M <b>2</b> o0	Α		0 010211 C	Ss	/ t .	0900020 00	. 2385	. 1 0 88
a 9 _ <b>15</b> 185	R		0 0102 77C	Ss	/ t .	60 000 700	.4 25 8	49. 0 8
i 6 <u>2</u> 3N	Α		0 00101 <b>5</b> C	Ss	/ t .	0 00003 <b>5</b> 0	. 9300	1 03 5
Pb <u>2</u> 2 08	Α		09003 0 C	Ss	/ t .	090020 00	.4 6 18	4 3 0 7
S b 6 <u>2</u> 0 8	Α		0 0000 <b>5</b> 00 C	Ss	/ t .	06000B 00	. 6 272	.449 0 2
S 946 <u>1</u> 0	Α		00010180C	Ss	/ t .	0 0000 <b>5</b> 00	. 2 727	.6 1 2 7
S i 6 <u>2</u> 15	R		<b>44</b> 00 80 C	Ss	/ t .	0 00101 00	. 1 310	.4 32 0
S 99 <u>1</u> 8n	Α	•	0 001021 0 C	Ss	/ t .	0 00010 50	. <b>6</b> 2 5	. 91 01
S4_21r5	R		0 00033 <b>5</b> C	Ss	/ t .	0 00020 100	. 118 5	. 62 8
T i49_33	Α		<b>66</b> 000 00 C	Ss	/ t .	0 00020 50	. 3758	921 1
T 9 <u>1</u> 0 8	Α		000103 T0C	Ss	/ t .	0 000 0000	.9 21 7	12 <b>3</b> 2
V_ 9 4 <u>2</u> 2	Α		0 <b>4</b> 000 C	Ss	/ t .	060000 000	.1 <b>6</b> 7	<b>6</b> 125
Z 6 <u>2</u> 02 n	Α		<b>66</b> 000 00 C	Ss	/ t .	040020 00	. 3 57 8	. 9 0 25 7
Y_ 6 _3 00	R		3 38 57C	Ss	/ t	. 93 003	. @4.7388	3 38 57
Y_ 4 <u>2</u> 2 3	Α		9 4. 8 <b>\$</b> C	Ss	/ t	. 1817 8	. 969660 7	94.88
Y_ 6 _3 00	Α		322 3 08C	Ss	/ t	29 1 <b>6</b> ,	. 60 770 8	<b>3</b> 22 3 08

#### Std 1

eh Nammt ce:NK16 - 10 02 101 ayl sAmm net:N T NA eh Nolleisi R vo 1n 033,

cquiD&a e	er: t ´	1 2 <i>1</i> 2 <i>1</i> 2 10 3 :3 P. <b>6</b> 3 8	M		Samp ITep e:	Sa ad tl	nr
Elem	Flags	Avg Ur	its	Stddev	%RSD	Ir	ntensity Ratio
g <b>_2A</b> 08	Α	. 94 <b>6</b> 0 0 C	Ss	/t.049010	0 0 . 901	0	42 850,
96 _3A1	R	. 90 288 C	Ss	/ t . 6 0 00	3 <b>8</b> . 90	7 <b>3</b> ′	<b>32.</b> 80,
s9 <u>1</u> A18	Α	. 60 03 15 C	Ss	/ t. 0000010	000 . 0008	70	.4307
u 4 <u>2</u> A2 7	Α	.464 0 <b>6</b>	Ss	/t. 906000	70 . 9902	0	4 103,
B_ 9 <u>2</u> 0 8	Α	. 6 <b>0</b> 1 7C	Ss	/ t . <b>6</b> 0010	70 . 4 0	3 0	1 00 ,8
Ba4 4_ 55	R	. 92 0 5 C	Ss	/ t . <b>6</b> 10	OB . 90	B	66 7 <b>1</b> 0,
B e _3 30	R	. 4 150 C	Ss	/t. 9612	7 . 0	5577	6 1 8 <b>1</b> 00,
Ca _18 5	8 R	.4 1 33 C	Ss	/ t . 010	2 <b>8</b> . 12	27	4 353 0,
C 6 22 5	5 A	.4 6 7 C	Ss	/t. 609001	0 . 4 90 01	3	12 7 <b>6</b> ,
C 6 <u>2</u> 2 o 8	Α	.4 02 7 <b>6</b>	Ss	/ t . 0 0010 1	170 . 9003	8	69 3 3,
C 6 <u>2</u> r77	Α	. 4 <b>6</b> 0 08 C	Ss	/ t . <b>9</b> 00001	00 . <b>0</b>	88	4 1 508
Cu _ <b>22 37</b>	Α	. 600 538C	Ss	/t.000 <b>2</b> 2	00 . 6 03	8	<b>4 27</b> 0,
F <b>6</b> 99 <u>2</u> 5	R	. 42 10 C	Ss	/ t . 010 3	3 77 .6 0	387	4 99 7 0,

Published: 12/32/103: 7:538 AM Pag ef1 35

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cquiD&a er: t 12	2 <i>1</i> 2 <i>1</i> 2 10 3 :3 P: <b>6</b> 3 8	М		Samp	lTypp e∶Sa ad	ti nr
Elem Flags	Avg Ur	nits	Ste	ddev	%RSD	Intensity Ratio
K_ 664_ 7 R	. 0 555 <b>&amp;</b>	Ss	/ t .	Ø1000 810	. 0 255	692 0 0,
L6i_107 R	. 03 <b>8 6</b>	Ss	/ t .	<b>6</b> 000 8 <b>5</b>	. 22230	4 44 0,
g <u>2</u> M20 5 A	.490 <b>8</b> 0 C	Ss	/ t . 9	90 0002 10	. 960 8	4 222 ,
6 <u>2</u> M <i>5</i> 7n R	.4 9601 C	Ss	/ t .	0 003 35 5	. 4 0 28 5	61 <b>5</b> 2 0,
<u>2</u> M2000 A	. 4602 0 C	Ss	/ t .	<b>6</b> 0102 5	.6 401 8	6 <b>6</b> 7,
a 9 _ 15185 R	.6 <b>6</b> 1 C	Ss	/ t .	0600188	. 60 <b>6</b> 7	6 6 <b>0</b> 0,
i 6 <u>2</u> 3N A	. 9602 3 C	Ss	/ t .	0.490201 0	. 94 <b>9</b> 0 8	692.0,
Pb <u>2</u> 2 03 A	. <b>0</b> 080 C	Ss	/ t . 0	<b>4</b> 90003 00	. 0.022 5.8	9. 880
S b 6 <u>2</u> 0 8 A	. 4 90 0 3 <b>&amp;</b>	Ss	/t. @	14 00001 00	. 9 90 0 3 0	9. 3 7 7
S 9±6 1_ 0 A	. 0.201 0.7C	Ss	/ t .	9000 5	.9 4 0 2 2	.9 1 8
S i 6 <u>2</u> 1 5 R	. 025750	Ss	/t.6	690 00 3 7	. 1 3 5	9 64 0,
S 99 <u>1</u> 8n A	.4 @10 70 C	Ss	/t. @	40000 3 00	. 9 6 <b>9</b> 0 0	4 6. 01
S4_21r5R	. 2 100 C	Ss	/ t .	<b>9</b> 10 00	. 603 <b>3</b>	1 00 <b>6</b> 0,
T i 49_33 A	. 603 7C	Ss	/ t	40900030	. 0.321 0	4 461 0,
T 9 <u>1</u> 0 8 A	. 46 <b>6</b> 0 8C	Ss	/ t . 0	00001 500	. 9003	4 4.6 0
V_ 9 4 <u>2</u> 2 A	. 66 @40 8C	Ss	/ t .	0.900102 0	. 9 940 2	2 02 08,
Z 6 <u>2</u> 02 n A	.9 O2 85C	Ss	/ t . 6	564 000         10	. 6 021 8	2 577
Y_ 6 _3 00 R	3 27 3 7C	Ss	/ t	4. 192 7	. 0331 25	3 27 3 7
Y_ 4 <u>2</u> 2 3 A	6 .6833, C	Ss	/ t 4	.6 48 1	.4 90 00 3	6.6833,
Y_ 6 _3 00 A	43031 0,C	Ss	/ t 4	. 91 2 5	. 6010 31 0	43031 0,

**ICV** 

eh Nammt ce:NK16 - 10 02 101 ayl sAnm net:N T XI eh Molteisi R vo 1n 033,

cquiDNa er: t 1 2 /2 /2 10 3 : 3 P. 5503 Samp ITep e:QC Flags Avg %RSD Elem Units Stddev Intensity Ratio 9. 3 83 11 3 08 **32**A œ Α ug L .6 2 75 .6 0 187 1 033 0, 96 \_3A1 R .1 032 .999 0 1 ug L 1 4 3 70, s9 <u>1</u>A18 96. 3 1 37 031 7 8 Α ug L .4 1 .123 7 u 4 <u>2</u>A2 7 . 9 15 6031 8 6 1 21 , Α 9.318 ωgL .4 9 . 6 603 B\_ 9<u>2</u> 0 8 Α 9 .63 0 3 8 4.207 ωgL .44 0 Ba4 4\_ 55 R 9.321 . 1 735 4 3 0 **6**, ug L 70 B e \_3 30 9 . 31 2 ug L 4.9 6 . 1 2 27 37 80, Ca **3** 58 1 03 **5**, ug L .б 55 . 4 22 32 0, С **6** 22 5 Α 9.322 ωg L .94 0 77 . 4 02 1 7 66 **5**0 , С 622 o 8 Α 4 . 003 . 60032 5 9 0 00 0 57 1 **5**0, μqL C 6 <u>2</u> r77 Α 9 . 31 2 μqL .9 1 17 0 63 8 Сu 22 37 Α . 6 3 5 5 9.32 8 ug L .9 0 0 7 5 **6**99<u>2</u> 5 41 0 00, ug L .1 332 . 12 08 3 508 R 41 3 2 0, ug L . 990 87 K\_ 664\_ 7 R .11 18 911 0, 107 R 4 . 0 8 . 4 58 .4 1 94 5 5 L6i \_ 32 ug L 2M20 5 A 41 02 0, . 1 0 8 . 4003 1 178 ωgL 2 **6**, 62M 57n R 9.43 5 ωgL 85 1 22 **37** 3 . 9900 8 5 2M**2**o0 Α 4 4.9 0 ωgL 0 20221 41 0 10, ug L a 9 <u>19</u>85 2 15 50, **157** 5 . 4 90 5 5 i 62 13N 9.63 . 6 00 525 . 3815 Α 8 ugL 64<del>01</del>10 6.33 P b <u>2</u>2 08 4 4.9 0 . 64 0 . 6 02 2 Α ωgL S b 6 2 0 8 A 9 . 31 1 3 7 8 8 ug L 6031 5 .1 1 5 0 S 946 1\_ 0 Α 96. 3 7 ug L 6. 333 . 961 5 4. 9 7 0 S i 6<u>2</u>15 RF 5.570, ug L 4 1 3,8 . 1 **6** 5 7**5**280, S 991 8n A 99.43 08 8 . 4 0025 8 6 .1 15 ωgL S 4 \_21 r 5 4.075 ug L 310 4 441 4. . 1 0 55 T i49\_33 Α 9. 3 18 ωgL . 4 27 .44 0 30 6 1 350, T 9 1 0 8 A 4 . 10 5 ug L .9 1 11 .4 6 0 70 64.1 0 V\_ 9 4<u>2</u> 2 Α 9.307 ug L 1 . 992 0 . 0 3527 118 ,8 Z 6 <u>2</u> 02 n 4. 200 ug L / . 0 2 50 0 187 1 0 65. Y\_ 6 \_3 00 / t 663 71 , R 66 3 71 ,C Ss 6.433 7 . 9 40 **8** 3

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**ICV** 

eh Nammt ce: NK16 - 10 02 101

eh Molteisi R vo 1n 033,

ayl sAam net:N T 🔼

cquiDNa er: t 1 2/2/2 10 3 :3 P 5508 Samp ITep e:QC Avg Units Elem Flags Stddev %RSD Intensity Ratio Y\_ 4 <u>2</u>2 3 . 4 60 60 7 5 . 87 53 C Ss 70 5 Α / t 4. 1 . 87 53 Y\_ 6 \_3 00 993 0 0,C Ss / t 91. 0 7 8 998 0 0, Α 03 3500 .

#### **ICB**

eh Mammt ce: K16 - 10 02 101

eh Molteisi R vo 1n 033,

ayl sAam net:N T

cquiD&a en	r: t 1	2 <i>1</i> 2 <i>1</i> 0 <b>9</b> : <b>9</b> P. <b>5</b> 2	M		Samp	lTypp e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2A</b> 08	Α	<b>440</b> 5	ug L	/	. <b>9</b> 03 5	. 21 75	6 0 <b>Z</b> 5
96 _3A1	R	. 61 32	ug L	/	. 942 8	. 212 5	. 6 0 8
s9 <u>1</u> A18	Α	. 42 3	ug L	1	. 02 <b>2</b> 5	.66 3 5	. 11 27
u 4 <u>2</u> A2 7	Α	96 <b>02</b> 0	ug L	1	.4 40 27	9. <b>6</b> 5	. 1087
B_ 9 <u>2</u> 0 8	Α	0 <b>32</b> 57	ug L	1	. 94 (2) 1	9.032	. 252 5
Ba4 4_ 55	R	69408	ug L	1	. 9 0011 7	.1 30 5	64. 2 8
B e _1830	R	660 0 71	ug L	1	. 010 003	. 1310	4 690 5
Ca _18 58	R	4 33 8	3 ug L	1	. 3 558	6.1 0 3	1 3 3 0
C 6 22 5	Α	. 003 875	ug L	1	. 90 <b>2</b> 02 8	9. <b>53</b>	690 <b>2</b> 5
C 6 <u>2</u> 2 o 8	Α	9 <b>0</b> 3 5	.ug.L	/	. 9 001 38	6. 158	. 4212
C 6 <u>2</u> r77	Α	9010 28	ug L	1	. 6 010 2 8	. 4 218	4.4 6 7
Cu _ <b>32 3</b> 7	Α	490 0 7 3	ug L	/	. 60002	4 .1 1 8	. 8388
F <b>e</b> 99 <u>2</u> 5	R	. 6 02 35	ug L	1	4. 9 <b>2</b> )	915,	9. 31 7
K_ 664_ 7	R	. 310	ug L	1	.6 18	.692 7	<b>3</b> 11
L6i _ 107	R	. 217 8	3 ug L	/	.4 60 27	. 9 73	.61 7 5
g <u>2</u> M <b>2</b> ) 5	Α	.4 2 70	ug L	1	. 21 21	.9 850	9 2 32
6 <u>2</u> M <i>5</i> 7n	R	4 01 8	3ugL	/	. <b>9</b> 081	. 62 17	. 1 25 8
<u>2</u> M <b>2</b> 000	Α	. 1 <b>2</b> 5	ug L	/	.9 0 357	4.44 5	4. 4 0
a 9 <b>_ 15</b> 185	R	-6. 99 2	ug L	/	.46 3 1	4.94 5	.9 32 8
i 6 <u>2</u> 18N	Α	. 0218	ug L	/	. 601 7	9.61 7	0 <b>2</b> 5 5
Pb <u>2</u> 2 03	Α	. 032 55	.ug.L	/	. 4 902 8	6.46 7	92 <b>3</b> 7
S b 6 <u>2</u> 0 8	Α	. მ 22	ug L	1	. 4903 7	. 30 58	.9 6 0 2 2
S 946 <u>1</u> 0	Α	.9503	ug L	/	. 462 3	46. 0 7	. 42 57
S i 6 <u>2</u> 15	R	. 62 57	ug L	/	.9 3 58	. 1 <b>5</b> 7	. 425 5
S 99 <u>1</u> 8n	Α	. 46 0 7	3 ug L	1	. 90 80	. 2 <b>5</b>	.4120
S4_21r5	R	6 <b>0</b> 37	ug L	1	. 00 383	6. 028	12 55
T i49_33	Α	.6 40 0 7	ug L	/	. 40 78	. 2 878	. 5 5 88
T 9 <u>1</u> 0 8	Α	. 9021 5	ug L	1	. 4021 8	.1 102	1138
V_ 9 4 <u>2</u> 2	Α	4 90 0 7 5	ωg L	/	. 40222	46 . 3 8	2 578
Z 6 <u>2</u> 02 n	Α	4 <b>0</b> 1 1	ug L	1	. 440 03	9.6 02	. 902 85
Y_ 6 _3 00	R	3 7 287,0	C Ss	/ t	. 29 00	. 40 5575	37287,
Y_ 4 <u>2</u> 2 3	Α	96 . 8 03 0	C Ss	/ t	9.6 4 3 7	. 10 0 735	96 . 8 03
Y_ 6 _3 00	Α	9 18 2 10,0	C Ss	/ t	9.43 57	. 023 8	9

#### **PQL**

Elem

g \_**x**a 96 \_3A1

s9 <u>1</u>A18

u 4 <u>2</u>A2 7 A

B\_ 9<u>2</u> 0 8 A

**2A** 08

eh Nammt ce: NK16 - 10 02 101

Flags

Α

R

Α

R

eh Molteisi R vo 1n 033,

ayl sAam net:N T 🛛 🗛

cquiDNa er: t 1 2 /2 /2 4/0 24 : R0 0 7 M Avg

6.6 6 1

96.

46.6

4.94

9.9

Units

10

. 132 0 ugL

2

ug L

ug L

8 ug L

7 ug L

1

/

1

1

Stddev	%RSD	Intensity Ratio
. 4 00 03 5	.4 0 0 7 5	. 310 8
. 44 17	. 922 0	4 9. 2 8
. 603 0 7	4.649	. 2 557
.4 940 7	.49 90 7	4 4. 0 7
. 9960	.4 602 7	. 25 7 8
. 6 40 0 50	. 1 322	49. <b>5</b> 2
େ ହାଣା ହ	012 0	റ മാദ

Samp ITep e:QC

. 6 40 Ba4 4\_ 55 5 ug L 4. 96 B e \_18 30 R 7 ugL . 6 @101 6.9 Ca \_8 58 R .მ ωgL 21 6.6 18 .922 0 **6** <u>2</u>2 5 A С 0003638 64. 9 4.9 4 7 ugL 0 027 8 6<u>2</u>2 o 8 A 9. 6 . 400 5 4 . 7 5 ug L . 1 0 70 02 7

Published: 12/32103:7:538 AM

Pag ef 3

#### **PQL**

eh bahmtoe:Nk.6 - 10 02 101 ayl s&am net:N T Nk. aguiD&a er t 1 2 /2 /2 40 /4 : P0 0 7 M eh Moleisi R vo 1n 033,

cquiD&n en	: t 12/2/2	2.40.24 : PD	0 7 M		Samp	lTyep e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
C 6 <u>2</u> r77	A	9.64 1	ug L	1	. 9023	. 41 32	.1 252
Cu _ <b>32 37</b>	Α	. 2 5	8 ug L	1	. 9 40 15	. 2 33 0	469.6
F <b>e</b> 99 <u>2</u> 5	R	.120	7 ug.L	1	4.4 25	4.4 23	4. 3 5 8
K_ 664_ 7	R	4 10	, ugL	1	6.4 17	.6 0 3 38	6.750
L6i _ 107	R	.1 0	50 ugL	1	. 42 15	.4 2 2 0	6 35,
g <u>2</u> M20 5	Α	6.1 0	7 ug.L	1	.4 1 75	. 1 32 8	.61 53
6 <u>2</u> M <i>5</i> 7n	R	4.9 6 1	ug L	1	. 66032	6.644	. 218 8
<u>2</u> M <b>2</b> 000	A W	.9 73	0 ugL	1	. 964.20 0	. 64 02 0	.42 15
a 9 <b>_ 15</b> 185	R	<b>6</b> 0	5, ug L	1	. 5 <b>18</b>	. 4 90 25	6425,
i 6 <u>2</u> 18N	Α	9. 1 <b>2</b>	ug L	1	. 0207	. 1 0 58	9.91 3
Pb <u>2</u> 2 03	Α	. 46 5	8 ugL	1	. 402 58	4.4 2 0	. 92 3 5
S b 6 <u>2</u> 0 8	Α	. 6 82	i ug L	1	.6 9 0 7 8	.94 7 0	.4 3 3 0
S 946 <u>1</u> 0	Α	9.9	ug L	1	.4 2 88	. 2152	.49 3 1
S i 6 <u>2</u> 15	R	9.1 2	3 ugL	1	.6 71 5	.9 3 78	. 1 187
S 99 <u>1</u> 8n	Α	4.11	3 ugL	1	.6 6 0 2 3	. 4 90 57	49. 6 3
S4_21r5	RF ·	4012	ug L	1	. 0230	9.4 0	. 12 78
T i49_33	Α	4.66	ug L	1	. 0 38	. 49 2	6 6.91
T 9 <u>1</u> 0 8	Α	9 5	ug L	1	.6 1 1 0	.461 0	. 2528
V_ 9 4 <u>2</u> 2	Α	9. 4 5	0 ugL	1	. 603 0	. 332	. 2 <b>1</b> 91
Z 6 <u>2</u> 02 n	Α	9. 1 1	7 ugL	1	. 6020 57	. 032	. 6 35 5
Y_ 6 _3 00	R	48 228	,CSs	/ t	9.931 7	. 1205	<b>43228</b> ,
Y_ 4 <u>2</u> 2 3	Α	999.9 8	C Ss	/ t	4.91 21	. 6 0 508	999.9 8 ,
Y_ 6 _3 00	Α	48 38	0,C Ss	/ t	6.92 83	. 9 040103	<b>48 38</b> 0,

#### LRS1

eh Nammtoe:NK16 - 10 02 101 ayl sAam net:N T NA eh Nolleisi R vo 1n 033,

ayı sanını		n.			_	00	
- 1		2/24034 PD 8				lTypp e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2A</b> 08	A F	9 .4 77	ug L	/	.9 1 21	. 96 0 5	962 7 0,
96 _3A1	R	99. <b>2</b> 0	ug L	/	. 4 78 7	.497	1 303,
s9 <u>1</u> A18	Α	2 <b>0</b> 00,	ug L	/	6 .99 2	. 03 33	6 0 <b>3</b> ,
u 4 <u>2</u> A2 7	Α	2 0 350,	ug L	/	.1 788	. 0808	08 5 <b>6</b> ,
B_ 9 <u>2</u> 0 8	Α	62 02 0,	ug L	/	. 17 08	. 40353	99980,
Ba4 4_ 55	R	9 4 2 0,	ug L	/	4.6.25	. 2 218	1 <b>63</b> ,000,
В е_1830	RW	61 8 08,	ug L	/	.1 20 0	. 4 0 5 5 8	6 3 50,000,
Ca _18 58	3 R	. 2 2 8	ug L	/	.6 3 1 7	. 1 3 00	6 .9 15
C 66 <u>2</u> 2 5	Α	9 1 21 0,	ug L	/	4. 3 35	. 90 77	9423 00,
C 6 <u>2</u> 2 o 8	Α	9 1 80,	ug L	/	. 917 8	. 6 031 8	17 100,
C 6 <u>2</u> r77	Α	9 4 50,	ug L	/	49.1 0	. 6 40 <b>2</b>	92 2 8 00,
Cu _ <b>_32 37</b>	Α	9 1 80,	ug L	/	. 321 1	.6 <b>6</b> 1	4 31 000,
F <b>e</b> 99 <u>2</u> 5	R	-9.6 <b>5</b>	ug L	/	. 03 5 <b>6</b>	.6 93 7	.9 88
K_ 664_ 7	R	. 3000	ug L	/	. 4 32 1	. 1 0 08	- 4. 72 7
L6i _ 107	R	9 1 700,	ug L	/	.42 3 7	. 1205	962000,
g <u>2</u> M <b>2</b> ) 5	6 A	- 3 101 ,	ug L	/	.42 28	.944 0 0	4.2 32
6 <u>2</u> M <i>5</i> 7n	R	9610,	ug L	/	.1 57 8	. 40280	3 01 5 00,
<u>2</u> M <b>2</b> o0	Α	9 9 50,	ug L	/	.1 0 5 8	. 990 35	33 <b>3</b> 70,
a 9 <b>_ 15</b> 185	R	94. 85	iug L	/	. 3 0 <b>5</b>	. 6 321	. 2 1 18
i 6 <u>2</u> 3N	Α	9 9 1 1 0,	ug L	/	64. 9 5	. 4032 5	4 4 0 <b>6</b> ,
Pb <u>2</u> 2 03	Α	4 2 0 00,	ug L	/	44.4 1	. (21 77	9 780,
S b 6 2 0 8	B A W	21 2 50,	ug L	/	4. 7 7 5	. 4 03 <b>3</b>	99 7 0,
S 9a6 <u>1</u> 0	Α	4 2 01 0,	ug L	/	9. 363	.4 90 1 8	6 3 0 5
S i 6 <u>2</u> 1 5	R	9 1 080,	ug L	/	. 1283	. 4 001 20	6 1 0 <b>6</b> ,
S 99 <u>1</u> 8n	Α	2 022 0,	ug L	/	6. 3 3	. 960 7	<b>63</b> 8 O,
S 4 _21 r 5	R	9 1 250,	ug L	/	. 3 0 55	. 6010 5 5	2 020 ,000,
T i49_33	A F	. 9 77	ug L	/	. 03 57	. 4 77	1210,
T 9 <u>1</u> 0 8	A F	4.69 8	ug L	/	. 6 6031	.4 6902	6.442

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#### LRS1

eh Matmt ce: K16 - 10 02 101

eh Mol teisi R vo 1n 033,

aylsAsmnet:NT NA

cquiDNa er: t 12/2/2/4034 PD 85 M Samp ITep e:QC Avg Elem Flags Units Stddev %RSD Intensity Ratio Α 9 6 9 3 3 **6**0, 50, ug L / V\_ 9 4<u>2</u> 2 **5**87 . 9 402 7 -Z 6 <u>2</u> 02 n A W 1 8380, ugL / 8285 .4 0 110 4 6 7 50, Y\_ 6 \_3 00 9 3 7 38C Ss / t 4.222 5 .6 **9** 3 77 R 9 3 7 38 Y\_ 4 <u>2</u>2 3 464. 8 3 C Ss / t . 9 251 . 60 08 5 Α 464. 8 3 Y\_ 6 \_3 00 Α 6310 3 0,C Ss / t 9.2 730 . 9 60 0 22 5 **6310** 3 0,

#### LRS2

eh Nammt ce: KN16 - 10 02 101 ayl sAam net:N T 🔼

eh Molteisi R vo 1n 033,

cquiDNa er: t 12/2/24/03:1P:3 58 M Samp IType e:QC

cquillea er	. [ ] 2	2/2/2 <b>4</b> 03.1F3 3	O IVI		Samp	nyep e∶QC	
Elem	Flags	Avg L	Jnits		Stddev	%RSD	Intensity Ratio
g <b>_32</b> \ 08	Α	. 722.3	ug L	/	. 4 40 0 3 8	.90537	- 9 9 5,
96 _3A1	R W	35 808D,	ug L	/	11 3 00,	. 92 0 8	69 32 00,
s9 <u>1</u> A18	Α	.462 8	ug L	/	. 5177	. 2027	. 990 7
u 4 <u>2</u> A2 7	Α	. 9 3 85	ug L	/	. 462 0	. 2535	4.9 0
B_ 9 <u>2</u> 0 8	Α	4.41 5	ug L	/	.9 0 0 7 8	6. 2 38	9. 9/1
Ba4 4_ 55	R	.6 0223	ug L	/	. 4 0 0 5	. 22 58	.91 3
B e _3 30	R	. 40 525	ug L	/	. 0 003	. 1 1 80	4.11 2
Ca _ <b>3</b> 58	R	4 <b>165</b> 00,	ug L	/	808 ,5	. 6 75	49 0 ,000,
C 6 22 5	Α	. 2 536	ug L	/	. 9 00 557	. 443 7	4.4 22
C 6 <u>2</u> 2 o 8	Α	4037	ug L	/	. 90 33	99.4 2	. 11 3 5
C 6 <u>2</u> r77	Α	0 <b>3 6</b>	ug L	/	. 000 08 7	. 91 03	. 4 602 1
Cu _ <b>32 37</b>	Α	21 30	ug L	/	. 00 538	. 92 <b>3</b>	4.4 88
F <b>£</b> 99 <u>2</u> 5	R	2 3 3800,	ug L	/	1 2 27,	. 60 353	4 700 00,
K_ 664_ 7	R	96 2 1 00,	ug L	/	1 17 7	. 90 57 8	4 21 300,
L6i _ 107	R	.99 2	ug L	/	. 021 3 5	.641 3	6.127
g <u>2</u> M20 5	Α	99 800,	ug L	/	4 9.61	. 9022 0	462 8 0,
6 <u>2</u> M <i>5</i> 7n	R	. 4 703	ug L	/	. 0322	4.4 3 8	.1 17 0
<u>2</u> M <b>2</b> o0	Α	9.94 5	ug L	/	. 11 20	. 91 38	.1 03 5
a 9 <b>_ 15</b> 185	R	99 1 1 00,	ug L	/	9. 383	.4 60 21	469 2 00,
i 6 <u>2</u> 3N	Α	.9 3 3 5	ug L	/	. 640 00 88	. 6490	- 6. 1 1 7
P b <u>2</u> 2 03	Α	.6 5 88	lug L	/	. 22 88	4. 02.3	- <b>4</b> 9. <b>3</b> 2
S b 6 <u>2</u> 0 8	Α	4.4 30	ug L	/	.9 1 15	44. 0 5	. 28 57
S 946 1_ 0	Α	.493	ug L	/	9. 6 2 8	9.492	9. 6 7 8
S i 6 <u>2</u> 15	RF	6 49 8 0,	ug L	/	4. 2 00	. 4 <b>6</b> 0 85	66 49 0,
S 99 <u>1</u> 8n	Α	4. 1 77	ug L	/	. 442 5	. 1 <i>2</i> 72	6. 9 2 0
S 4 _21 r 5	R	. 42 <b>8</b>	ug L	/	. 4 610 2	. 0 <b>16</b> 5	9.42.2
T i49_33	Α	. 9 27 5	ug L	/	. 6990	. 4 2 31	4.2 52
T 9 <u>1</u> 0 8	Α	. 2111	ug L	/	. 60 <b>7</b> 01	.44 33	1 1 <i>8</i> 7
V_ 9 4 <u>2</u> 2	Α	.6025	ug L	/	. 6 021 0	.91 22	6. 9 5 7
Z 6 <u>2</u> 02 n	Α		kug L	/	. 0102 33	.9 <b>0</b> 58	. 4 50
Y_ 6 _3 00	R	6 3 <b>6</b> 3,0		/ t	. 1 7252	.4 0 0160	63 <b>6</b> 8,
Y_ 4 <u>2</u> 2 3	Α	4. 7271, C	Ss Ss	/ t	6. 2 <b>2</b> 5	. <b>6</b> 0 <b>32</b>	4. 7271,
Y_ 6 _3 00	Α	2 <b>3</b> 3 00, C		/ t	9.9285	. 6003 025	2 <b>3</b> 3 00,
		•					

#### **ICSA**

eh Malm toe: K16 - 10 02 101

eh Molteisi R vo 1n 033,

ayl sAam net:N T NA

cquiD&a en	r: t 12/	2/24/03:2P3I	7 M	Samp	lTypp e∶QC	
Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
g <b>_32</b> \ 08	Α	.641 2	ωgL /	. 9 0 28	4. 4 53	- 66 <b>4</b> ,
96 _3A1	R	99 <b>5</b> 00	,ugL/	6 1 7,5	. 032 85	64 4 7 00,
s9 1_A18	Α	. 1 <b>32</b> 8	ωgL /	. 022 75	.412 2	<b>5</b> 20 5
u 4 <u>2</u> A2 7	Α	-4.6 2.8	BugL/	. 4 402 0	. 153 5	6. 5 <b>2</b> 0
B_ 9 <u>2</u> 0 8	Α	. 4 5 <b>6</b>	ug L/	. 64 0 8 8	. 1 157	9. 6 7 8
Ba4 4_ 55	R	. 9 900 3	ωgL /	. 99010 3	. 1 02 7	.69 08
B e _1830	R	01 28	3 wgL /	. 0 <b>2</b> 0 <b>32</b>	. 2311	1828

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#### **ICSA**

eh Malmut ce: KN16 - 10 02 101 ayl sAam net: N T XN eh Mol teisi R vo 1n 033,

cquiD&na er: t	12/2/2403:2P31 7 M	Samp	lTyep e∶QC	
Elem Flag	s Avg Units	Stddev	%RSD	Intensity Ratio
Ca _18 58 R	4 7/800, ugL	/ 6 32,	. 1320	9 88 00,
C 66 <u>2</u> 2 5 A	.6121 ugL	/ . 00 5255	4.4 🞾	4.2 85
C 6 <u>2</u> 2 o 8 A	92 <b>Z</b> ugL	/ . 6 02 5 8	9. 9 1 7	. 025 87
C 6 <u>2</u> r77 A	6 460 3 ug L	/ . 4032 3	.96 <b>5</b>	. 6 03 01
Cu _ <b>32 37</b> A	94.2 5 ug L	/ . 6 <b>49</b> 0 3	. 621 5	6. 31 7
F e99 <u>2</u> 5 R	1 18700, ugL	/ 62 02 ,	. 1120	492500,
K_ 664_ 7 R	.92.17 ug.L	/ 6.64 8	.44 2 5	4.12 2
L6i _ 107 R	. 12 3 8 ug L	/ . 032 38	.6 2 35	.1 250
g <u>2</u> M20 5 A	4 25 060, ugL	/ .1 1 8 5	. 4 00 00 8	6 8350,
6 <u>2</u> M <i>5</i> 7n R	0.1855 ugL	/ . 6 902 3	.99 3 0	.9 3 80
<u>2</u> M2000 A	. 4 537 ugL	/ .9 0222	6. 1 0 8	. 4 85
a 9 <b>_ 15</b> 185 R	6.115 ug L	/ . 49 <b>3</b>	.696 8	9.1 18
i 6 <u>2</u> 3N A	.6690 8 ugL	/ . 6 40 7	9. 1 13	1 <i>2</i> 7 7
Pb <u>2</u> 2 03 A	660 87 ug.L	/ . 9 2 3	4 .1 1 3	2533
S b 6 <u>2</u> 0 8 A	.6962 ug L	/ . 42 78	.1 033	. 4 700
S 946 <u>1</u> 0 A	. 9323 ugL	/ . 962 2	.9708	. 4 59
S i 6 <u>2</u> 1 5 R	9.1 32 ugL	/ .49 60 3	. 2 555	. 2 287
S 99 <u>1</u> 8n A	.94 50 տցL	/ . 9 02 50	4. 6 31	. 31 22
S4 _21 r5 R	W . 9/ 57 ug L	/ . 94 60 0	. 9 0 5 55	41 5,8
T i49_33 A	.991 7 ug L	/ 900855	4.9 77	49.9 5
T 9 <u>1</u> 0 8 A	.61 28 ugL	/ .6 1 2 7	.4 80	1 3 <b>8</b>
V_ 9 4 <u>2</u> 2 A	912 5 <b>u</b> g L	/ . 966 003 1	. 03058	4. 92 7
Z 6 <u>2</u> 02 n A	.490 7 8ug L	/ . 6 0 0 257	. 1370	.6 4 3
Y_ 6 _3 00 R	6 93 20 ,C Ss	/ t 9.19 72	.49 60 73	6 93 <b>2</b> 0 ,
Y_ 4 <u>2</u> 2 3 A	.7228,0C Ss	/ t . 4 3 <b>2</b> 2	. 4 966 0 7 5	. 728,0
Y_ 6 _3 00 A	662 72 0,C Ss	/ t .99 5	. 4 90 01 3 0	662 720,

#### **ICSAB**

eh Naamt oe:NK16 - 10 02 101 ayl sAam net:N T NK

eh Molteisi R vo 1n 033,

ayı smalli ile	I .IN I	Α.					
cquiD&na en	: t 12/2	2/24/03:2P. 18	M		Samp	lTyep e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_22</b> \ 08	Α	. 2 031	ug L	1	. 4005	. 001587	6 3 3 7
96 _3A1	R	49 0 700,	ug L	1	611 <b>7</b> 0,	. 2378	6 9 4 2 00,
s9 <u>1</u> A18	Α	9.9 78	ug L	1	.6 4 7	. 1 170	. 921 8
u 4 <u>2</u> A2 7	Α	49 . 2 0	ug L	1	. 03630	. 0 038	41 8,5
B_ 9 <u>2</u> 0 8	Α	4 9. 7 5	iug L	1	. 022 0	. 4 <b>01-20</b> 5	4 6.9 3
Ba4 4_ 55	R	4 .6 1 8	ug L	1	. 61 3 3	. 02 380	6 312 0,
В е_1330	R	469.9	ug L	1	. 4 1 8	. 603 80	857 <b>6</b> ,
Ca _18 58	R	4 9 5 800,	ug L	1	921 8	.4 690 7	9 578 00,
C 6 22 5	Α	9. 28	8ugL	1	. 4 03 02	. 400307	41 0 <b>6</b> ,
C 6 <u>2</u> 2 o 8	Α	4 .9 3 8	ug L	1	. 64022	. 90155	46 <b>9</b> ,
C 6 <u>2</u> r77	Α	4 . 15 5	iug L	1	. 46 03 7	. 6 <b>9</b> 0 7 7	9 51 8
Cu _ <b>32 37</b>	Α	4 .9 28	ug L	1	. 6 3 50	. 0 <b>3</b> 27	6 732,
F <b>£</b> 99 <u>2</u> 5	R	1 38 700,	ug L	1	66 . 3 7	. 6 031 3	35 3800,
K_ 664_ 7	R	4 2 0 00,	ug L	1	9.9 8	.9 0 3 0 7	6 4 1 08
L6i _ 107	R	. 3517	ug L	1	.69 3 2	.6 0 <b>8</b> 5	7 510,
g <u>2</u> M <b>2</b> ) 5	Α	44 9 3 00,	ug L	1	64 . 33	. 4490	66 99 0,
6 <u>2</u> M <i>5</i> 7n	R	4 . 350	ug L	1	. 9/32	. 9 02 33	6 964 ,
<u>2</u> M <b>2</b> 000	Α	46. 52	ug L	1	6. 4 3 3	. 91 3 0	. 1871
a 9 <b>_ 15</b> 185	R	21 0 10,	ug L	1	9.6 85	.46 0 38	49 5 <b>6</b> ,
i 6 <u>2</u> 3N	Α	69.6 8	ug L	1	. 21 20	. 4 02 1 7	640,
P b <u>2</u> 2 08	Α	4. 2 0 7	ug L	1	. 99 03 5	.94960	- 6. 1 1 8
S b 6 <u>2</u> 0 8	Α	. 538 5	iug L	1	. 4 0 185	. 44 0 8	4.92 0
S 986 1 0	Α	4. 3 8	ug L	1	. 32 85	.4 9 7 8	. 11 35
S i 6 <u>2</u> 15	RF	. 212 7	ωgL	1	. 9 15 5	. 942 5	.9 1 8
S 99 <u>1</u> 8n	Α	4 4. 50	ug L	1	.6 2 77	. 90 587	66. <b>6</b>

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#### **ICSAB**

eh Mahmtoe:MK16 - 10 02 101

eh Mol teisi R vo 1n 033,

ayl sAam net:N T NA cquiDNa er: t 1 2 /2 /2 40 3 : 212 18 M

'					Samp	ITyep e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
S 4 _21 r	5 R	4. 1 52	2 ugL	/	4. 69 1	. 01 80 8	<b>5</b> 350,
T i49_33	Α	46 .6 0	ug L	/	. 22308	. 00165	1 <b>72</b> 2 0,
T 9 <u>1</u> 0	8 A	6.9 8	5 ug L	/	. 900 857	. 00 08 0	9. 2 0
V_ 9 4 <u>2</u> 2	Α	4 . 5	77 ug L	/	.9 4 0 0 5	. 9 600 7	4 827,
Z 6 <u>2</u> 02	n A	. 28	8 8 ug L	/	. 9 5 87	.66 0 08	2 01 5,
Y_ 6 _3 00	) R	6 948 3	,CSs	/ t	.11 (21	. 0320 38	69483,
Y_ 4 <u>2</u> 2 3	Α	. 777	7,7C Ss	/ t	4. 4 9 02	. 90 01 51 8	. 7 777 7
Y 6 3 00	) A	2 7 <b>3</b>	08,C Ss	/ t	. 115 3 5	. 6 <b>09</b> 85	2 7 <b>5</b> 08

#### CCV

eh Namit ce:KN16 - 10 02 101

eh Molteisi R vo 1n 033,

ayl sAsm net:N T 🔼

cquiD&n er		2/2/24034 <b>12</b> 1 M		•	lTopp e∶QC	
Elem	Flags	Avg Units		Stddev	%RSD	Intensity Ratio
g_ <b>2A</b> 08	Α	49.25 ug L	1	. 21 00	.4 6402	4 1 2 <b>6</b> ,
96 _3A1	R	4612 0, ugL	/	6.11 5	.9 0 3 55	661 1 0,
s9 <u>1</u> A18	Α	49. 88 <b>u</b> g L	1	.99 0 1 8	. 02.20.5	.6 25
u 4 <u>2</u> A2 7	Α	49.91 ug L	1	4. 6 0 5	. 40285	2 000,
B_ 9 <u>2</u> 0 8	Α	496. 1 ug L	1	. 9 101 2	. 4020 03	. <b>6</b> 87
Ba4 4_ 55	R	4. 8 <b>8</b> ugL	/	. 4 3 73	. 6 0 717	9 3 7 <b>6</b> ,
В е_1330	R	4. 288 ugL	/	4. 2 88	. 40 878	9 2 3 08,
Ca _ <b>1</b> 8 58	R	4912 0, ugL	/	9 .96 3	. 0 <b>22</b> 5	2 7/0 0,
C 66 <u>2</u> 2 5	Α	49.63 ug L	/	. 02805	. 66 0 2	6 6 3 ,8
C 6 <u>2</u> 2 o 8	Α	49. 78 <b>u</b> g L	/	. 9 <b>9</b> 0 27	. 9 @410 5	61 28,
C 6 <u>2</u> r77	Α	49. 32 ugL	/	. 92 55	. 6025	96 <b>27</b> ,
Cu _ <b>32 37</b>	Α	49.4 5 ug L	1	. 9 160	. 1 103	66 8 ,8
F 699 <u>2</u> 5	R	491.2 0, ug L	1	6.41	.9 40 18	3 <b>8</b> 00,
K_ 664_ 7	R	12210, ug L	/	9.911	. 4 0 7 70	<b>90</b> 0,
L6i_107	R	49. 50 ugL	/	4. 808	.9 0 858	<b>27</b> 33 ,
g <u>2</u> M20 5	Α	912 70, ug L	/	. 302	. 02 3 55	21 \$5
6 <u>2</u> M <i>5</i> 7n	R	4. 888 ug L	/	. 3117	.64 0 88	4 7 <b>2</b> ,
<u>2</u> M <b>2</b> o0	Α	49. 58 <b>u</b> g L	/	. 323	.6 0 <b>1</b> 2	9 .9 18
a 9 <b>_ 15</b> 185	R	412 1 0, ug L	1	94.94	. 6 0 71 5	9302 0,
i 6 <u>2</u> 3N	Α	49. 73 ug L	/	. 010 557	. 0 0 0 13	41 01,
P b <u>2</u> 2 08	Α	. 6500 ugL	/	. 400 587	. 0101 10	44 . 85
$S \ b \ 6 \ 2 \ 0 \ 8$	Α	49. 22 ugL	1	. (21 55	. 4 003 77	9.4 8
S 946 1_0	Α	4. 887 ug L	/	.6 728	. 1 <i>2</i> 57	9. 078
S i 6 <u>2</u> 15	R	612 <b>5</b> , ug L	1	.1 03 8	. 02803	9 000,
S 99 <u>1</u> 8n	Α	.6 <b>25</b> ug L	/	.44 0 30	. 001885	. 2 017
S4_21r5	R	49. 21 ug L	/	. 538	. 11 85	<b>65 6</b> ,
T i49 33	Α	49. 85 ug L	/	. 40 8	. 664037	2 0 508
T 9 1 0 8	Α	. 251 ug L	/	. 990 <b>3</b>	. 4 40 7	. 2 015
V_ 9 4 <u>2</u> 2	Α	49.11 ugL	1	. 61 08	. 6 03 77	1 <b>0</b> 00,
Z 6 <u>2</u> 02 n	Α	49.12 ugL	1	. 1 3 <b>3</b> 7	. 9 02 7 5	1 2 2 8
Y_ 6 _3 00	R	43 770,C Ss	/ t	6. 2 <b>257</b>	. 4007008	43 770,
Y_ 4 <u>2</u> 2 3	Α	9.6 837 , C Ss	/ t	.4 28 0 8	. 96 0 0 3 2 5	9.6 <b>837</b> ,
Y_ 6 _3 00	Α	3 0 727 0, C Ss	/ t	4.261,8	.69 0 2 <b>8</b>	3 0 727 0,

#### CCB

eh Nammt oe:Nk16 - 10 02 101 ayl sAmm net:N T Nk - 1 2 2 2 240 3 :618 70 eh Molteisi R vo 1n 033,

cquiD&a	er: t	1 2 /2 /2 40 3 : 6 <b>B</b>	70 M		Samp	lTyep e∶QC	
Elem	Flag	s Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2</b> A	08 A	000 2	280 ugL	1	. 66 0 0 1 7	. 850	. 3 37 8
96 _3A1	R	-4.4	85 ug L	1	. 2210	49. 2 8	. 632 5
s9 <u>1</u> A18	8 A	.4 42	0 ugL	1	. 07178	. 22 3 7	. 1208
u 4 <u>2</u> A2	7 A	.69 0	58 ug L	1	. 00 017	. 9 5	. 253 7

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CCB

eh Malmut ce: KN16 - 10 02 101 ayl sAsım net: N T N1

eh Moleisi R vo 1n 033,

cquiDNa er: t 12/2/2403:618 70 M				Samp		
Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
B_ 9 <u>2</u> 0 8	3 A		85 ugL /	. 010 2 8 8	. 94 1	. 44 27
Ba4 4_ 55	R	<b>0</b> 32	8 ug L /	. 0 <b>2</b> 0221	6. 1 27	9. 5 <b>3</b> 7
В е_1330	R	00 <b>2</b> 2	25 ugL /	. 9 010 30	.662 5	4 <b>0 Z</b>
	8 R	-4. 9 1	5 ug L /	6. 6 17	4 .6 8	91 5 8
C 66 <u>2</u> 2	5 A	. 010 2	55 ug L /	. 66610 7	.11 58	9 4 0 7 7
C 6 <u>2</u> 2 o 8	8 A	9602	ugL /	. 40 73	4.6 3	. 21 17
C 6 <u>2</u> r77	7 A	49 <b>9</b> 0	7 ugL /	. <b>9</b> 0705	4 .1 1 8	4. 64 0
Cu _ <b>32 3</b> 7	Α	02 3	385 ug L /	. 90353	6.12 7	. 153 8
F <b>e</b> 99 <u>2</u> 5	R	4 402	5 ug L /	. 42 75	1122 ,	. 3 7 08
K_ 664_ 7	R	6. 2	05 ug L /	4. 3 35	.6 32	6 77 8
L6i _ 107	R	4. 1	05 ug L /	. 9 032 5	9. 6 15	. 3.188
g <u>2</u> M <b>D</b>	5 A	.6 4 0	5 8 ug L /	. 6 60 2	4. 2 38	4 32 7
6 <u>2</u> M <i>5</i> 7	n R	. 464103	ugL /	. 9 60 3	.9 55 8	.9 43 2
<u>2</u> M <b>2</b> 000	Α	4.99	7 ug L /	. 49 1	.9922	. 2 0 0 5
a 9 _ <b>15</b> 18	5 R	-4. 6 1	15 ugL /	. 1 128	9. 3 1 7	.4 3 73
i 6 <u>2</u> 18N	Α	<b>0</b>	705 ug L /	. 60 27	.1 102	91 32
P b <u>2</u> 2 03	Α	. 4 40	0 wgL /	. 46 03 2	46. 2 7	9 2 2 8
S b 6 <u>2</u> 0	8 A	.6 0 01	l5 wgL /	.6 0 7 <b>6</b>	.611	.6 0 <b>8</b> 7
S 946 1_ 0	Α	. 6322	ωgL /	.6 0 177	.992 0	. 6223
S i 6 <u>2</u> 15	R	3221	lugL/	. 3118	9. 875	9.642
S 99 <u>1</u> 8r	n A	6 03 3	30 ugL /	. 6 05	9.92 0	.9 9 0 3 7
S4_21r	5 R	49 <b>0</b> 2	2 ugL /	. 0 37 7	6.11 5	92 58
T i49_33	Α	. 4 03 2	25 ugL /	.9 64013	6.462	5 <b>85</b>
<b>—</b>	8 A	.64 0 1	0 ugL /	. 6 03 0 5	4. 728	96 90 2
V_ 9 4 <u>2</u> 2	Α	9 <b>0</b> 02	2 ugL /	. 003057	.992 7	-4. 557
Z 6 <u>2</u> 02 r	n A	902	5 ugL /	. 990 03 5	. 43 7	. 02 555
Y_ 6 _3 00	R	3 1 18	2,CSs/	t 9.4 858	. @2. 538	3 1182 ,
Y_ 4 <u>2</u> 2 3	Α	9 . 020	, 5C Ss /	t . 96 187	. 96 0 0 857	9.020,5
Y_ 6 _3 00	Α	<b>32</b> 32	00,C Ss /	t 4 <b>6</b> . 8 8	.46 @4 00	<b>32</b> 32 00,

#### LCSWGK26ICW2

eh Mammut ce:NK16 - 10 02 101 ayl sAnm net:N T NA eh Molleisi R vo 1n 033,

cquiD&a er:	t 12/2/240	043 46 ¶P M		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg Units	:	Stddev	%RSD	Intensity Ratio
g <b>_32</b> \ 08	Α 4	49.9 5 <b>u</b> g L	1	.4 0 328	.9 4 0 73	449 ,
96 _3A1	R	920,8 <b>ug</b> L	1	.9 0335	. 44 0 0 5 8	2787
s9 <u>1</u> A18	Α	.1 003 <b>ug</b> L	1	.4 4 0 2 3	.4 023	. 3213
u 4 <u>2</u> A2 7	Α .	.64018 wgL	1	. 44 <b>6</b> 0 2	6.4 70	.441 8
B_ 9 <u>2</u> 0 8	Α 4	49. 75 <b>u</b> g L	1	. 0.110.0	. 4 90 0	.6 <b>5</b> 8
Ba4 4_ 55	R	9 <b>9</b> 7, ug L	1	. 91 78	.9 90 03	1 215 00,
B e _1330	R	. <b>6</b> 5 8 vgL	1	. 9402 5	. 6901 5	9 32 8
Ca _8 58	R	642 3, ugL	1	. 9221	. 960 38	649 5 ,
C 66 <u>2</u> 2 5	Α	.2 575 ug L	1	. 94 0	.4 02 <b>6</b>	3 31 5,
C 6 <u>2</u> 2 o 8	Α	.4 <b>6</b> 5 5 ug L	1	. 1 638	.90275	9 1 11 ,
C 6 <u>2</u> r77	Α	9.1 18 wgL	1	.6 602 7	. 603 8	96 2 1 ,
Cu _ <b>32 37</b>	Α	49.2 3 ug L	1	. 0 0837	. 032.3 8	4 96 3 ,
F e99 <u>2</u> 5	R	61 03, <b>u</b> g L	1	. 6 7 08	. 40373	32 33,
K_ 664_ 7	R 9	9648, <b>u</b> g L	1	6.6 51	. 90 537	1.28 ,8
L6i _ 107	R	. 1558 <b>u</b> g L	1	. 60175	. 038	4 7 5,8
g <u>2</u> MD 5	Α	15 10, ug L	1	. 1320	. 02158	9.108
6 <u>2</u> M <i>5</i> 7n	R	. 650 5 ug L	1	4. 6 3 3	. 01878	4 7 80,
<u>2</u> M <b>2</b> 000	Α	.4305 wgL	1	. 61 2 1	.4 01 3 0	9. 55 5
a 9 _ 15185	R	7185, ugL	1	6. 52 8	. 60 273	91 8 08,
	Α	.4 65 5 ugL	/	.964	. 603 88	1 017,
Pb <u>2</u> 2 03	Α	.1.10 8ugL	/	. 02 638	. 4 02 58	9. 838
S b 6 <u>2</u> 0 8	Α	.1 003 տցL	1	.9 02 75	.9 02 <b>6</b>	. 63 7 8

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#### LCSWGK26ICW2

eh Maammut oe: Mx16 - 10 02 101 ayl sAsım net: N T NXI eh Mol teisi R vo 1n 033,

cquiD&a ∈	er: t 12 <i>1</i> 2 <i>1</i> 2	2 4043 46 ¶? M		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg Units		Stddev	%RSD	Intensity Ratio
S 96 1_ 0	Α	.1 10 0 ugL	1	. 4 85	. 1 387	. 2 02 7
S i 6 <u>2</u> 15	R	500 ,5 ug L	/	. 1 02 7	. 02 02 5	9370,
S 99 <u>1</u> 8n	Α	4.153 ugL	1	.446 0 2	. 600 875	4. 21 3
S4_21r5	R	6.157 ug L	1	. 6 3 5 8	.69 0 0 5	25 00,
T i49_33	Α	494. 5 ug L	1	. 44 3	. 02.178	920 70,
T 9 <u>1</u> 0 8	Α	.9IO3 ug L	1	.4 0 321	.4 01 58	4.61 5
V_ 9 4 <u>2</u> 2	Α	49. 15 ug L	1	. 0.350 8	. 0 027	4 03 0,
Z 6 <u>2</u> 02 n	Α	49. 77 ug L	1	. 911 5	. 4 02 20	43,
Y_ 6 _3 00	R	3 783 7C Ss	/ t	9. 48 1 5	. 00 0 538	3 783 7
Y_ 4 <u>2</u> 2 3	Α	. 83817 C Ss	/ t	. 6 7022	. 9906071	. 887
Y_ 6 _3 00	Α	68 0 50,C Ss	/ t	4. 570 5	. 4 010 177	<b>6</b> 8 0 50,

#### PBWGK26ICW2

eh Mammut ce: Mx16 - 10 02 101 ayl sAnm net: N T XXI eh Mol teisi R vo 1n 083,

cquiD&n en	r: t 12	2/2/2 <b>4</b> 04 <b>8</b> : P:1 5 M		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg Units		Stddev	%RSD	Intensity Ratio
g <b>_2</b> A 08	Α	010 708 ug L	/	. 40 77	996.6	.4 3 88
96 _3A1	R	-9.4 1.5 ug L	1	.6 9 8 8	9 .941	6 63 3
s9 <u>1</u> A18	Α	. 010105 ugL	1	.69 0 85	6 885	.44 40 2
u 4 <u>2</u> A2 7	Α	4 <b>0</b> 85 ug L	1	. 90 <b>6</b> 7	4. 2 7 0	. 61 53
B_ 9 <u>2</u> 0 8	Α	.4201 ugL	1	. 0.680	4.6 2 5	.666 7
Ba4 4_ 55	R	<b>0</b> 357 ug L	1	. 0211	9.628	9. 51 8
B e _1330	R	<b>0</b> 3 85 ug L	1	. 0.010 087	. 4 30	12 <b>32</b>
Ca _ <b>3</b> 58	R	3I18 ug L	1	. 0 7 555	. 23 75	1 31 0
C 66 <u>2</u> 2 5	Α	600310 wgL	1	. 9 <b>9</b> 10 2	. 6 35 5	6 6 7
C 6 <u>2</u> 2 o 8	Α	O2217 ugL	1	. 66022 5	4. 4 3	. 1 1 80
C 6 <u>2</u> r77	Α	.9 <b>0</b> 27 ugL	1	. 4990 0 8	. 2 <b>5</b> 5	. 49 7 8
Cu _ <b>22 37</b>	Α	. 64007 7 ug L	1	. 4 03 3 8	449.6	.611 5
F <b>e</b> 99 <u>2</u> 5	R	9 157 ugL	1	. 2.321	4.905	. 211 0
K_ 664_ 7	R	6.62 0 ugL	1	. 402 75	. <b>6</b> 03	77 08
L6i _ 107	R	4. 2 85 ug L	1	. 6 3 7	. 3212	4 . 1 22
g <u>2</u> M <b>2</b> ) 5	Α	. 311 0 ugL	1	. 3115	.1 10 3	642 8
6 <u>2</u> M <i>5</i> 7n	R	. 9020 ugL	1	. 010 0 58	. 87 <b>5</b>	. 33
<u>2</u> M <b>2</b> 000	Α	.4108ugL	1	.6 0 18 3	6.4 02	.912 2
a 9 <b>_ 15</b> 185	R	4.1 08ugL	1	.446 0 1	. 6 31 8	. 3827
i 6 <u>2</u> 18N	Α	<b>0</b> 1 55 ug L	1	. 4 @1011	.6 3 15	91 2 3
Pb <u>2</u> 2 03	Α	010 255 ugL	1	.4 4 0 18	9311,	9 3 0 3
S b 6 <u>2</u> 0 8	Α	.4 0 725 ugL	1	. 41 5	4.9 5	. 60 7 <b>5</b>
S 946 <u>1</u> 0	Α	.64 <b>6</b> 1 ug L	1	.6 9 0 2 7	. 63 28	.9 1 55
S i 6 <u>2</u> 15	R	. 2 030 ugL	1	. 3.201	4. 1 88	4. 287
S 99 <u>1</u> 8n	Α	966100 ugL	1	. 02.3 57	21 1 5,	. 91 0 7
S4_21r5	R	4022 8 ugL	1	. 00 8737	.4328	9 0 7
T i49_33	Α	. 966 <b>02 u</b> g L	1	. @40080 7	. 1207	<b>8</b> 8 8
T 9 <u>1</u> 0 8	Α	.644001 ugL	1	. 460 7	. 2 1 7	1217
V_ 9 4 <u>2</u> 2	Α	6 <b>6</b> 058 ug L	/	. 40028 8	4 .1 28	6 42 8
Z 6 <u>2</u> 02 n	Α	.4 90 13 ug L	/	. 90 57	6. 3 57	. 69 7
Y_ 6 _3 00	R	93 283,C Ss	/ t	· · · · · · · · · · · · · · · · · · ·	.46 <b>6</b> 15	93283,
Y_ 4 <u>2</u> 2 3	Α	9 .4 0 7,5 C Ss	/ t	. 19223	. 403 85	9 .4 0 7,5
Y_ 6 _3 00	Α	321 2 55,C Ss	/ t	6 62 18	. 6 4 38	<b>32</b> 1 2 <b>5</b> ,

#### SG9180-011

eh Nammt oe:NK16 - 10 02 101

eh Molteisi R vo 1n 033,

Pag 9e f

ayl sAam net:N T 🖎

 cquiDNa
 er:
 t 1 2 /2 /2 40 3 : P.65 2 5 M
 Samp IType e : U k w non n

 Elem
 Flags
 Avg
 Units
 Stddev
 %RSD
 Intensity Ratio

 g
 \_28 8 8 8 - . . 4 0 022 3 ug L /
 . 6 90 2 .93 85 - .41 7 8

Published: 12/32103: 7:588 AM

#### SG9180-011

eh Manmut ce: KN16 - 10 02 101 ayl sAam net: N T KN1 eh Mol teisi R vo 1n 083,

cquiD&n er: t´	1 2 12 12 40 3 : P. <b>5</b> 2 5 M		Samp	lTyep e:Uk w	non n
Elem Flags	Avg Units		Stddev	%RSD	Intensity Ratio
96 _3A1 R	.1 O28 ugL	1	. 2 08	. 112 7	4 .92 7
s9 <u>1</u> A18 A	.412 5 ug L	1	.6 01 <b>5</b>	49. 9 3	.6 4 0 8 8
u4 <u>2</u> A2 7 A	. 2521 ugL	1	. 1220	. 2320	. 15 <b>6</b>
B_ 9 <u>2</u> 0 8 A	.6 3 80 տցև	1	. 4 60 8	. 03 185	4.61 8
Ba4 4_ 55 R	6.631 ug L	1	. 400 <b>2</b> 0	. 02 025	6928,
B e _1830 R	402010 ugL	1	. 6 <b>9</b> 02 5	6.2 07	9.4 2 8
Ca _8 58 RW	′ 4 5708, ացL	1	9.2 28	.6 40 1 5	9 87 <b>6</b> ,
C 66 <u>2</u> 2 5 A	. 021 0 8 և ը L	1	. 4090025	. 62 57	.9 1 3 8
C 6 <u>2</u> 2 o 8 A	6.925 <b>u</b> g L	1	. 44 <b>9</b> 01	. 0 20 0	.42 <b>5</b> 2
C 6 <u>2</u> r77 A	. 40253 տցL	1	. 9 0 022 3	. 9 75	. 9 55
Cu _ <b>32 37</b> A	. 1.20 8ug L	1	.4 4 0 0 7	9. 3 3 7	6.4 2 8
F <u>6</u> 99 <u>2</u> 5 R	442 0 , ugL	1	. 11 2 0	. 4 0 578	6 423,
K_ 664_ 7 R	94 25,ugL	1	.6 7 <b>2</b> 8	. 90 2 <b>8</b>	9472,
L6i _ 107 R	.9 72.0 ug.L	1	. 640 3	. 1 2 <b>2</b>	9.6 31
g <u>2</u> M20 5 A	6 69 1 , ug L	1	6. 62 5	.4 0 3 0 5	4 10 ,
6 <u>2</u> M <i>5</i> 7n RW	423 5 ug L	1	4. 2 2 7	. 1 03 5	3 720 0,
<u>2</u> M20o0 A	<b>0</b> 2 38 ug L	1	. 0 0000 <b>5</b> 00	. 9 0 03 22	. 6 00
a 9 <b>_ 15</b> 185 RW	11 <b>0</b> 00, ug L	1	4 . 1 88	. 603 08	6 62 7 00,
i 6 <u>2</u> 18N A	. 12 15 ug L	1	. 602 53	. 20 <b>5</b>	4. 2 2 8
Pb <u>2</u> 2 03 A	.4 0158 ևց L	1	. 9 02 22	64.6 8	49 2 7
S b 6 <u>2</u> 0 8 A	. 1.20 7 ug L	1	. 96 1	6.41	. 60 380
S 946 <u>1</u> 0 A	96017 ugL	1	.4942	. 13 50	.6 1 77
S i 6 <u>2</u> 1 5 R	4 4 17, ug L	1	49. 0 5	. 41 00	6 3 7 ,8
S 99 <u>1</u> 8n A	.9 03 0 Ցացև	1	.4 60 77	. 1 22 2	. 11 87
S4_21r5R	.217 7 ug L	1	.9 2 2 0	. 1 075	62720,
T i49_33 A	. 4.2 8 ևց L	1	. 0138	. 6 828	.4 32 0
T 9 <u>1</u> 0 8 A	. 1. <b>8</b> 8 ևց L	1	. 031 5 7	.61 8 8	422 5
V_ 9 4 <u>2</u> 2 A	.49 0 0 8 տց L	1	.900325	9. 1 00	9 1 53
Z 6 <u>2</u> 02 n A	4.42 5 ug L	1	. 6003 35	. 4 90 8	6. 2 38
Y_ 6 _3 00 R	643 7 5C Ss	/ t	. 631 83	. 1 1013	6437 5
Y_ 4 <u>2</u> 2 3 A	49.81,5 C Ss	/ t	. 20258	. 4 02 22 8	49 . 8 1,5
Y_ 6 _3 00 A	94 2 808C Ss	/ t	1. 102,8	. 90 52 8	94 2 808

#### SG8865-001

eh Malm toe: Mx 6 - 10 02 101 ayl sAam net: N T Mx eh Mod teisi R vo 1n 033,

cquiD&n er	: t 12/	2/2403: P. <b>5</b> 25	7 M		Samp	lTypp e:Uk w	non n
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_22</b> 08	Α	4.4	87 ugL	/	. 60 <b>6</b> 7	. 11 3	. 6 <b>5 8</b>
96 _3A1	R	1 3	7,ugL	1	.1 25 5	. 11 58	4. 311
s9 <u>1</u> A18	Α	- 9. 2	88 ug L	1	.4 21 8	. 17 88	. 4022 7
u 4 <u>2</u> A2 7	Α	. 6 781	ug L	/	9. 92 1	96. 3 5	. 2 76
B_ 9 <u>2</u> 0 8	Α	469 3	, ug L	/	. 25 7	4.49	. 1703
Ba4 4_ 55	R	9. 273	ug L	/	. 7857	. 🔞 8	6.921
B e _13 3 0	R	-6. 6 3	8 ugL	/	. 021 0 8	. 3 310	-9. 6 8 8
Ca _13 58	R	2252 00	, ug L	/	6 6 0 8	. 611 5	22 22 0,
C 66 <u>2</u> 2 5	Α	.4 6 0 3	8 ug L	/	. 421 2	49 .4 0	9 4 0 7 8
C 6 <u>2</u> 2 o 8	Α	4 5 <b>6</b>	ug L	/	6.4 7 8	.11 77	. 211 7
C 6 <u>2</u> r77	Α	. 6 33 0	ug L	/	9. 9 0 5	. 2 70 7	. 9 25 3
Cu _ <b>32 37</b>	Α		5 ug L	/	6. 2 0 7	4.3 55	6. <b>8</b> 5
F <b>e</b> 99 <u>2</u> 5	R		,8 տg L	/	96.1 7	9. 1 33	9.4 28
K_ 664_ 7	R	4 2 27 00	, ug L	/	4 .9 50	. 6602	6 9 88
L6i _ 107	R	446.	5 ug L	/	. 4 083	.99 7	6.9 0
g <u>2</u> M20 5	Α	96 11 00	, ug L	/	1 3 8 <b>6</b> 0,	4.41 1	64 <b>3</b> 1 ,
6 <u>2</u> M <i>5</i> 7n	R	9. 21	8 ug L	/	4. 9 5 7	. 92 01	. 417 7
<u>2</u> M <b>2</b> 000	Α			/	. 1 185	. 1 17 7	6. 557
a 9 <b>_ 15</b> 185	RF	411 00,000	, ug L	1	44 2 8 0,	. 0 273 0	46 5 700,

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#### SG8865-001

eh Manmut ce: Mx16 - 10 02 101 ayl sAam net: N T XN eh Molteisi R vo 1n 033,

cquiD&n e	r: t 12/2	2.403: P.525	7 M	Samp	lTyep e:Uk w	non n
Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
i 6 <u>2</u> 3N	Α	. 2 727	ugL /	. <b>3</b> 3 5	9. 1 2 5	. 4 0 3 5
Pb <u>2</u> 2 03	Α	. 1 15	8 ug L /	6.61 5	9.60 0	6 42 1
S b 6 <u>2</u> 0 8	3 A	.6 3 7 0	ωgL /	9.91 7	44. 2 2	. 0.7027
S 986 1_ 0	Α	. 61 7	ωgL /	9. 3 55	9. 7 57	. 1 158
S i 6 <u>2</u> 15	R	<b>5</b> 20 ,	,8 ug L /	. 3.32 7	. 66 0 0 1 7	9.9 0
S 99 <u>1</u> 8n	Α	. 6.215	ωgL /	. 1 8 <b>5</b>	4. 3 5 7	. 1 037
S 4 _21 r 5	R	9856,	,ugL/	. 38 35	. 94 <b>9</b> 0 2	1 7770,
T i49_33	Α	<b>3</b> 57	7 ug L /	4. 3 38	. 1828	92 3 3
T 9 <u>1</u> 0 8	Α	42 80	ωgL /	. 353 8	.1 8 <b>8</b>	91 3 5
V_ 9 4 <u>2</u> 2	Α	4. 0.35	ωgL /	4. 2 8	.1 0 5 8	. 9 40 <b>2</b>
Z 6 <u>2</u> 02 n	Α	. 2320	ωgL /	9. 4 17	4 . 1 88	. 1 377
Y_ 6 _3 00	R	<b>93</b> 172,	,CSs/t	. 924 0 8	. 600025 10	<b>93</b> 172 ,
Y_ 4 <u>2</u> 2 3	Α	49.8 50	C Ss / t	. 2402 7	. 662 3 8	49.8,50
Y_ 6 _3 00	Α	9 21 070,	,CSs/t	642 87	.9 0223 8	9 21 070,

#### SG8865-001L

eh Namint ce:NK16 - 10 02 101 ayl sAnn net:N T XI eh Maleisi R vo 1n 033,

cquiD&a en		2/2 10 3 : <b>E</b> 901	М		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2A</b> 08	Α	- 9. 9 7 8	ug L	/	. 4 725	9.4 1 8	5 57 5
96 _3A1	R	1237	ug L	/	623,	99.9 1	.49 5
s9 <u>1</u> A18	Α	9 35	ug L	/	9.62 7	.1 1 8 7	. (2.22. 5
u 4 <u>2</u> A2 7	Α	- 9.4 0	ug L	/	4. 11 8	4.9 0	.4 0 8/5
B_ 9 <u>2</u> 0 8	Α	9 1 38	ug L	/	.11 <b>8</b>	.9 535	. 1 321
Ba4 4_ 55	R	44. 77	ug L	/	6.6 2 1	9.4 5 3	4. 83 5
B e _1330	R	- 4.463	ug L	/	4. 6 2 5	. 12 3 8	1211
Ca _8 58	R	221 080,	ug L	/	1 21 5	. 4 0 5 8	9 <b>6</b> 3,
C 66 <u>2</u> 2 5	Α	-6. 155	ug L	/	4. <b>32</b> 8	. <b>3</b> 7 77	9 <b>6</b>
C 6 <u>2</u> 2 o 8	Α	-4 .66 3	ug L	/	.91 0 5	. 2 507	.966
C 6 <u>2</u> r77	Α	182	8 ug L	/	. 2 7 55	. 8 <b>8</b> 7	. 92 7 8
Cu _ <b>32 37</b>	Α	. 422 5	ug L	/	9. 93 5	.6 75	. 91 5
F e99 <u>2</u> 5	R	4 <b>8</b>	ug L	/	. 2535	6. 4 10	.92 7
K_ 664_ 7	R	9 <b>đ</b> 800,	ug L	/	464 0,	. 23 8	.4 577
L6i _ 107	R	64 1,	ug L	/	6. 22 2	9.44	46. 5 8
g <u>2</u> M <b>2</b> 0 5	Α	66 9 500,	ug L	/	6. 21 5	. 002225	4 .6 55
6 <u>2</u> M <i>5</i> 7n	R	6.1 01	ug L	/	9. 1 1 0	. 1 18	. 1 <b>0</b> 8
<u>2</u> M <b>2</b> 000	Α	-6 .6 77	ug L	/	.64 0	. 1 570	. 5857
a 9 <b>_ 15</b> 185	R	<b>33</b> ,000,	ug L	/	31 <b>5</b> 2 0,	.6 0 5 <b>8</b>	64 2 5 0,
i 6 <u>2</u> 18N	Α	- 9. 42 2	ug L	/	9. 2 3 7	.1 00 5	9127
Pb <u>2</u> 2 03	Α	-6 . 8 <i>5</i> 7	ug L	/	.1 221	.1 7 <b>8</b>	64 32
S b 6 <u>2</u> 0 8	Α	6.42 8	ug L	/	6. 2 2 0	9. 6 <b>2</b>	. 6 90 28
S 986 <u>1</u> 0	Α	-6.230	ug L	/	6.92 3	.1 003	.4 4 1
S i 6 <u>2</u> 15	R	4 . 015	ug L	/	6 .4 15	.6 3 8	. 33 35
S 99 <u>1</u> 8n	Α	6. 527	ug L	/	.4 88	. 3321	. 41 7
S4_21r5	R	63 <b>T</b> 0,	ug L	/	. 11 1 7	. 0310 5	41 15,
T i49_33	Α	-4 .9 3 3	ug L	/	9. 2 88	6. <b>18</b>	962 7
T 9 <u>1</u> 0 8	Α	6. 6 <b>1</b> 5	ug L	/	6.4 7	9.2 18	412
V_ 9 4 <u>2</u> 2	Α	-66.	ug L	/	. 925	. 7 <b>8</b> 5	-6. 4 3 7
Z 6 <u>2</u> 02 n	Α	. 1 3 27	ug L	/	. 5858	4 6.9 2	. 0.32.7
Y_ 6 _3 00	R	•	C Ss	/ t	9.1 72 7	.469 <b>6</b> 3	9318 5
Y_ 4 <u>2</u> 2 3	Α	. 8 <b>8</b> \$	C Ss	/ t	. 1 770 5	.9 <b>6</b> 4 1 5	. 8 <b>8</b> \$
Y_ 6 _3 00	Α	93 0 08	C Ss	/ t	9 .3 20 , 8	. 12 56	93 0 08

#### SG8865-001A

eh Mamint ce: Mx6 - 10 02 101 ayl sAam net: N T XX eh Molteisi R vo 1n 033,

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#### SG8865-001A

eh Manmut ce: KN16 - 10 02 101 ayl sAnm net: N T N1 eh Moleisi R vo 1n 033,

cquiD&a en		/2 /2 10 <b>3</b> 4 <b>15</b> 0	8 M	Samp	olTyppe:Ukw	non n
Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
g <b>_22</b> 08	Α	41 5 <b>6</b> ,	ug L/	1 111 ,	. 9 172	6 283,
96 _3A1	R	6 3 0,	ug L/	. 32 <b>5</b> 2	.6 2 77	4. 3 7 0
s9 <u>1</u> A18	Α	6 <b>6</b> 7 0,	ug L/	6. 87 5	4.9 11	.9 0 5
u 4 <u>2</u> A2 7	Α	. 2 577	ugL /	6.693	4 .4 2	. <b>3</b> 05
B_ 9 <u>2</u> 0 8	Α	2 03 08	ug L/	. 8083	4. 32 0	99.93
Ba4 4_ 55	R	91 0 30,	ug L/	.9 588	. 9 <b>3</b> 0	6 1 1 80,
В е_1330	R	11 350,	ug L/	. 5 <b>6</b> 0	4. 6 7 8	4 3 0 08
Ca _18 58	R	9 101 00,	ug L/	9 28,5	. 91 00	463 80,
C 6 22 5	Α	1 73 <b>6</b> ,	ug L/	6 .9 1 8	.9 3 3	4927
C 6 <u>2</u> 2 o 8	Α	1 7/50,	ug L/	6 4. 1 7	. 3150	9125,
C 6 <u>2</u> r77	Α	6 41 3 0,	ug L/	61 3 3,	. 3800	449 8
Cu _ <b>22 37</b>	Α	<b>6</b> 15 0,	ug L/	4 25,	. 6 00	4 9 00,
F <b>e</b> 99 <u>2</u> 5	R	69 3 2 00,	ug L/	6. 87 8	. 02 31 5	221 08,
K_ 664_ 7	R	94 7 080,	ug L/	<b>6312</b> ,	. 9 03 33	1 312 0,
L6i _ 107	R	1 0 710,	ug L/	4.855	4. <b>6</b> 8	9430,
g <u>2</u> M <b>2</b> 0 5	A W	64 2 ,000,	ug L/	1 5 <b>3</b> 00,	. 922	4 412 ,
6 <u>2</u> M <i>5</i> 7n	R	11 1 50,	ug L/	. 5083	. 4 502	6 3 00,
<u>2</u> M <b>2</b> 0 0	Α	1 720 0,	ug L/	4.85	4.96 7	9.153
a 9 <b>_ 15</b> 185	RF	612 30,000,	ug L/	9 4 2 <b>6</b> ,	. 0.17 8	6 0 7 <b>6</b> 0,
i 6 <u>2</u> 18N	Α	1 7 570,	ug L/	6 6. 2 2	. 6 3 5 5	6. <b>1</b> 01
Pb <u>2</u> 2 03	Α	1 <b>27 6</b> ,	ug L/	4.855	4.9 10	9.2 27
S b 6 <u>2</u> 0 8	Α	1 770 0,	ug L/	4. 783	4.6 11	.12 70
S 946 <u>1</u> 0	Α	6 1 33 0,	ug L/	491,	.6 6 8 8	. 587
S i 6 <u>2</u> 1 5	R	9 0 70,	ug L/	4 4.6 2	.9 3 3 5	.42 03
S 99 <u>1</u> 8n	Α	961 3	ug L/	. 1 570	112 5	. 9 00
S4_21r5	R	21 1 2 0,	ug L/	4 6. 2 3	. 92 10	4 4 2 10,
T i49_33	Α	94 5 0,	ug L/	441 3,	9. 0 57	12370,
T 9 <u>1</u> 0 8	Α	91 5 08,	ug L/	1 17 ,5	. 1 0 <b>3</b> 7	.12 15
V_ 9 4 <u>2</u> 2	Α	1 5 0%0,	ug L/	1 225,	9.6 3 7	996 5 ,
Z 6 <u>2</u> 02 n	Α	1 870,	ug L/	6.365	.4943	9 6. 0 0
Y_ 6 _3 00	R	43270,	C Ss /	t . 2 2887	. 49 00 717 0	43 27 0,
Y_ 4 <u>2</u> 2 3	Α	9.382,5	CSs/	t . <b>373</b> 22	. 6 <b>6 8</b>	9.382,5
Y_ 6 _3 00	Α	4 2 282 0,	C Ss /	t 4.93 <b>5</b> 2	. 02117	4 2 282 0,

#### SG8865-001D

eh Nammt ce:NK16 - 10 02 101 ayl sAmm net:N T eh Molteisi R vo 1n 033,

cquiD&a en	: t 12	2/2/210 <b>9</b> : BD23 M		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg Units		Stddev	%RSD	Intensity Ratio
g <b>_22</b> 08	Α	-9. 6 0.7 ugL	/	. 6 252	.9 57 7	6 1 1 3
96 _3A1	R	611 5 ug L	/	4.90	. 121 0	. 63 88
s9 1_A18	Α	69. 0 5 <b>u</b> g L	/	9.6 2 0	4.28	. 40 228
u 4 <u>2</u> A2 7	Α	32 75 ug L	/	. 7833	. 922 3	4 012 5
B_ 9 <u>2</u> 0 8	Α	9623, ug L	/	4 .6 3 7	4.91 0	6 . 1 <b>3</b>
Ba4 4_ 55	R	.9 <b>87 u</b> g L	/	. 1 357	. 49 7	.62 00
B e _3 30	R	-4.4 <b>2</b> ug L	/	.4 0 087	. 4 0	3 738
Ca _8 58	R	4 4 5700, ug L	/	6 27 ,8	.4 1 17	9 1 2 70,
C 6 22 5	Α	3 <b>2</b> 3 ugL	/	. 60258	.49 7	1 185
C 6 <u>2</u> 2 o 8	Α	1212 ugL	/	4. 785	9.4 3 8	.649
C 6 <u>2</u> r77	Α	-6.99 7 ug L	/	.9 72 3	6.11 5	.4 2 55
Cu _ <b>_32 37</b>	Α	3 508 ug L	/	.41 0 3	9.21 3	. 1 800
F <b>£</b> 99 <u>2</u> 5	R	9.1 57 ug L	/	9. <b>21</b>	.61 02	9.412
K_ 664_ 7	R	3 <b>37</b> 000, ug L	/	4925,	.690 <b>2</b> 5	69 <b>2</b> 0,
L6i _ 107	R	4. 7 <b>8</b> ug L	/	6.442	. 535	4.11 8
g <u>2</u> M20 5	Α	2 <b>8</b> 3 00, ug L	/	4 41 00,	.91 3 0	42 27 ,
6 <u>2</u> M <i>5</i> 7n	R	.2.10 7 ug L	/	6. 00 5	.9 2 78	6 .44 5
<u>2</u> M <b>2</b> 0 0	Α	.91 03 ugL	/	. 62 88	6422,	. 1 03 8

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#### SG8865-001D

eh Mammt ce: N46 - 10 02 101 ayl sAam net: N T N4 eh Molteisi R vo 1n 033,

cquiD&n er: t1	2/2/2 10 9 : BD 2 3 M	Samp	lTγep e:Uk w	non n
Elem Flags	Avg Units	Stddev	%RSD	Intensity Ratio
a 9 <b>_ 15</b> 185 RW	9 <b>85</b> ,000, ug L /	4 <b>d</b> 500,	.4 1 7 8	46 7 700,
i 6 <u>2</u> 18N A	215 5 ug L /	6.99	. 22. 57	911 8
Pb <u>2</u> 2 03 A	2223 ugL/	. 62 3 3	.1 015	9323
S b 6 <u>2</u> 0 8 A	9. 7 85 ug L /	. 327 8	46.69	. 6 D
S 9e6 <u>1</u> 0 A	.922.3 ug.L/	. 1 187	. 38 58	. 442 3
S i 6 <u>2</u> 1 5 R	440,8ugL/	4.4 73	. 11 27	9. 317
S 99 <u>1</u> 8n A	66 51 <b>u</b> g.L /	4. 577	.6 08 8	.99 0 1 2
S4_21r5R	7.287, ug L /	9. 505	. 1207	64 5 0,
T i49_33 A	6.91 8 ug L /	. 32 37	9. 1 3 8	6 5 <b>5</b>
T 9 <u>1</u> 0 8 A	-6.120 wgL/	9. 42 3	.1 118	1 30 5
V_ 9 4 <u>2</u> 2 A	6 38 8ugL /	. 6 7 50	9 . 4 03	-4.4 4 1
Z 6 <u>2</u> 02 n A	.9182 ugL/	. 332	. 1 03 8	. 9 21 3
Y_ 6 _3 00 R	6 63 17 ,CSs / t	96. 2 08	. 6 902 1 1	66317,
Y_ 4 <u>2</u> 2 3 A	4.825,5C Ss / t	. 48 363	.44 @4 87	4.825,5
Y_ 6 _3 00 A	9 <b>29 10</b> 0,C Ss / t	44 . 27 0	. 40 15	9 <b>29 10</b> 0,

#### SG8865-001S

eh Mammut ce: Mx16 - 10 02 101 ayl sAam net: N T Mx1. eh Mol teisi R vo 1n 033,

cquiD&n er:	t 12/2	/2 10 24 : 1 1 <del>9</del>	7 M		Samp	lTypp e:Uk w	non n
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_22</b> \ 08	Α	9. 7	75 ug L	1	. 91 3 5	. 1 75	4 . 4 57
96 _3A1	R	4 1 <b>2</b>	, ug.L	1	.9 382	. 1 178	.1 321
s9 <u>1</u> A18	Α	4.1 3	7 ugL	1	. 2310	. 4 17	. 1 222
u 4 <u>2</u> A2 7	Α	- 4.4 51	ug L	1	. 2 50 5	46. 4 0	22 75
B_ 9 <u>2</u> 0 8	Α	63 70	, ug.L	1	. 228 3	. 9221	. 7 <b>5</b> 25
Ba4 4_ 55	R	4 4 22	, ug.L	1	66. 6 8	. 1 538	66 <b>5</b> ,
B e _18 3 0	R	9.8	55 ugL	1	<b>. 5</b> 3	. 9 <b>3</b> 2	9. 3 7 0
Ca _8 58	R	5 <b>57</b> 0	0, wgL	1	1 5000,	.69 2 2	66230,
	Α	. 30 !	5 8 ug L	1	6. 575	. 21 <b>6</b>	. 72 <b>5</b> 2
C 6 <u>2</u> 2 o 8	Α	4.9 58	ug L	1	6.12 1	. 21 55	44. 9 8
C 6 <u>2</u> r77 /	Α	. 3 70	8 ug L	1	. 22 3 5	6. <b>2</b> 7	.6 0 5
Cu _ <b>32 37</b>	Α	4 . 277	ug L	1	4. 1 2 8	. 43 20	6 .1 1 2
F <b>e</b> 99 <u>2</u> 5	R	31 32	, ugL	1	9.1 83	6. 46 0	4. 22 3
K_ 664_ 7	R	46 9 7 0	0, wgL	1	4 123,	. 0 18 <b>8</b>	64 7 5
L6i _ 107	R	61 5	,8 ug L	/	64. 9 8	4. 137	4 9.6 2
g <u>2</u> MD 5	Α	<b>8</b> 750	0, wgL	1	9 1 03 00,	. 21 75	2.187,
6 <u>2</u> M <i>5</i> 7n	R	4 30	, ugL	/	6.9 0 5	4.6 <b>3</b>	4 .6 0 8
<u>2</u> M <b>2</b> 0 0	Α	4.42 0	ug L	1	. 028 5	. 33 3 8	. 1 835
a 9 <b>_ 15</b> 185	RF	11 3 08,00	0, wgL	1	9 27 70,	.64 0 1 2	44 5 <b>5</b> 0,
i 6 <u>2</u> 3N /	A	9.4 5	5 ugL	1	4 .4 8	4.9 2 3	. 2320
	Α	9. 5	57 ug L	1	6.208	64.9 1	1213
S b 6 <u>2</u> 0 8	Α	.1 <b>6</b>	0 ugL	1	6.408	4. 0.55	. 1 250
S 9x6 1_ 0	Α	9.1	57 ug L	1	. 288	9. 2 78	. 222 8
S i 6 <u>2</u> 15	R	6 1 3	55, ug.L	1	. 21 <i>2</i> 7	. 1.32. 8	6. 2 8 5
S 99 <u>1</u> 8n	Α	6.9 25	ug L	1	4.4 5	.42 73	. 5 <b>6</b> 0
S4_21r5	R	1 0 5	55, ug.L	1	6. 2 3 1	. 223 8	21 11 0,
T i49_33 A	4	9.231	ug L	1	. 1523	. 49 55	69 .6 8
T 9 <u>1</u> 0 8 A	4	.94 38	ug L	1	. 6 58	.91 80	9 01 5 0
V_ 9 4 <u>2</u> 2	Α	9.21	0 ugL	1	4. 235	4. 9 5 8	. 3250
Z 6 <u>2</u> 02 n	Α	6 4. 2	0 ugL	1	4.9 3	.6 21 2	. 221 0
Y_ 6 _3 00	R	448 70	,CSs	/ t	4 . 3 3 27	.9 <b>6</b> 2 78	448 70 ,
	Α	4.8 <b>3</b> 7,	C Ss	/ t	6.330	. 4 <b>9</b> 717	4.837,
Y_ 6 _3 00	Α	4 2 28 3	0,C Ss	/ t	4 1. 33, 5	. 4 0 <b>6</b> 33	4 2 28 3 0,

#### SG8865-002

eh Mammut oe: KN16 - 10 02 101

eh Multeisi R vo 1n 033,

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#### SG8865-002

eh Manmut ce: KN16 - 10 02 101 ayl sAnm net: N T N1 eh Moleisi R vo 1n 033,

•		2/2 10 3 : 1 <b>19</b> 8			•	lTopp e∶Uk w	non n
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2A</b> 08	Α	-4. 91	8 ugL	/	. 122 0	9.21 3	. 1 103
96 _3A1	R	4. 38	7 ugL	/	46.43	4.1 <b>6</b>	. 930 5
s9 <u>1</u> A18	Α	-49. 2 0	ug L	1	4. 62 5	49.9 2	. 00 0 8
u 4 <u>2</u> A2 7	Α	4 18	ug L	1	49.4 0	. 2 273	. 0 7 <b>5</b> 0
B_ 9 <u>2</u> 0 8	Α	6 32	7,ugL	1	4. 8 8	6. 2 78	66. 2.8
Ba4 4_ 55	R	.11 3	8 ug L	/	. 1 02	.9 80	4 .62 2
3 e <u>1</u> 830	R	6 17 0	ug L	/	.6 9901	.6 8 5 8	42 8
Ca _8 58	R	646 080	, ug L	1	22 380,	. 3 350	2 7 508
C 66 22 5	Α	6 0 717	ωgL	1	. 90 577	. 7 <b>5</b> 3	69 2
$\frac{-}{622}$ o 8	Α	1 020	ug L	1	4.9 35	49.4 1	. 1 708
C 6 <u>2</u> r77	Α	-6. 1 7	8 ug L	1	. 02 203	. 432 7	. 92 57
Cu <b>_32 37</b>	Α	-6. 17	8 ug L	1	. 11 1 5	.1 173	. 7703
= <b>e</b> 99 <u>2</u> 5	R	6 00		1	4.1 00	.91 3 2	9. 78
<_ 664_ 7	R	66 <b>5</b> 00	, ug L	1	<b>4 2</b> 7 0,	.4 3 20	4 38
6i107	R	.9 570	ωgL	1	.911 1	. 208	4.1 3
g 2M20 5	Α	9 4 1 300	, ug L	1	2.32 1700,	.462 5	9942
6 <u>2</u> M <i>5</i> 7n	R	9.2 <b>5</b> 2	.ug L	1	4. 1 3 8	. 5 5 <b>6</b> 5	4. 18
2M <b>2</b> o0	Α	-4.1 <i>2</i> 7	ωgL	1	.911 2	. 180	. 15 7
a 9 <u>1</u> 5185	RF	1 3 0 <b>6</b> ,000	, ug.L	1	<b>12</b> 1 00,	. <b>3</b> 18	6 6 9 2 00.
_	Α	6.64 3	, ug L	1	. 1 32 8	. 2 00 0	6 01 7
P b 22 03	Α	993 8	ug L	/	. 91 77	4.6 1 0	3 535
-	Α	-4. 8		/	9. 9 7	642,	. 9 03 10
S 946 1 0	Α	.41 3 3	ug L	/	6.12 0	9 .9 3 7	. 1 258
S i 6215	R	946 5	, ug.L	/	.43 35	.944 5	4.6 2
S 991 8n	Α		,	/	.61 50	66. <b>6</b>	. 11 20
54 21 r 5	R	11 20 0	•	1	449.4	4. 0.08	4221 0
_	A	3 287	, ug L	1	. 6 8 5	. 2 01 8	421 8
_	4	1320	•	1	.412 7	9.9 3 8	4 1 1 3
/_ 9 4 <u>2</u> 2	A		95 ug L	1	. 2 63	.612 1	4 382
	A	. 2 77		1	. <b>3</b> 05	9. 1 1 0	.961 1
Y_ 6 _3 00	R	3 272 3		/ t	4.6 10 7	. 91 <b>8</b>	3 272 3
Y_ 4 <u>2</u> 2 3	Α	46 .6 8 0,		/ t	9. 70 85	.9 4 0 3 75	46 .6 8 0,
Y_ 6 _3 00	A	6 2 83 65		/ t	6 .3 <b>3</b> , 8	. 12 380	6 2 <b>83 (5</b> .

#### SG8865-003

eh Manmut ce: MK6 - 10 02 101 ayl sAam net: N T MK eh Molteisi R vo 1n 033,

cquiD&a er	· + 12/	2/2 10 3 : 283 3	5 M		Samp	lTogp e:Uk w	non n
Elem	Flags		Units		Stddev	%RSD	Intensity Ratio
g <b>_32</b> 08	Α	43 38	ug L	/	. 021 17	.66 53	. 1 3 3
96 _3A1	R	1723	ug L	1	6 .9 57	9 .6 2 3	6. 170
s9 <u>1</u> A18	Α	6 3 8	8 ug L	1	. 2 03 8	. 6 25 7	. 0 76
u 4 <u>2</u> A2 7	Α	4 21 1	ug L	1	9. 2 38	9.1 3 3	.4 0 7 <b>6</b>
B_ 9 <u>2</u> 0 8	Α	42 53,	, ug L	1	9. 572	. 22 78	. 35 38
Ba4 4_ 55	R	4.6 0	ug L	1	. 9 40 <b>2</b>	. 0.7257	.62 3 0
B e _3 30	R	4 73 5	ug L	1	. 123	6. 1 <b>3</b>	66 3
Ca _8 58	R	66 5 3 00,	, ug L	1	21 380,	. 3 855	4 2 3 <b>6</b> ,
C 6 22 5	Α	41 53	ug L	1	. 2 35	64.1 1	4 1 <b>8</b>
C 6 <u>2</u> 2 o 8	Α	1 <i>2</i> 57	ug L	1	. 4 28	6.11 1	.4 42 2
C 6 <u>2</u> r77	Α	-6. 6 <b>8</b> 7	ug L	1	4. 9 3 0	6.385	.44 2 0
Cu _ <b>32 37</b>	Α	<i>2</i> 722	ug L	1	. 6 28 8	4.11 7	6.9 2 5
F <u>e</u> 99 <u>2</u> 5	R	6.738	ωgL	1	4.422	9. 2 21	4.683
K_ 664_ 7	R	4 6 3 <b>6</b> 0,	, ug L	1	6 1 1 <b>6</b> ,	. 3 100	<b>27</b> 1,8
L6i _ 107	R	6 .4 22	ug L	1	9.643	6. 6 3 8	9.1 53
g <u>2</u> M20 5	Α	6 17 700,	, ug L	1	1 <b>6 6</b> 0,	.992 0	92 3 7,
6 <u>2</u> M <i>5</i> 7n	R	. 22 3	ug L	1	. 2 17 8	. 121 8	. 37 35
<u>2</u> M <b>2</b> 000	Α	- 4.9 8	ug L	1	. 92 1 8	. 1 25 5	.9 3 32

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#### SG8865-003

eh Mantroe: MK6 - 10 02 101 ayl sAam net: N T MK eh Molteisi R vo 1n 033,

cquiD&n er: t 1	2/2/2 10 3 : 2893 3 5 M	Samp	lTogp e:Uk w	non n
Elem Flags	Avg Units	Stddev	%RSD	Intensity Ratio
a 9 <b>_ 15</b> 185 RF	11 2 <b>5</b> ,000, ug L /	4 2 2800,	. 6220	4 5 <b>3</b> 00,
i 6 <u>2</u> 3N A	9125 ugL/	.9 283	.6 538	61 00
Pb <u>2</u> 2 08 A	-4.310 ugL/	. 1 3 03	. 3.188	3 1 15
S b 6 <u>2</u> 0 8 A	9.631 <b>u</b> gL/	. 21 00	. 3520	. 960 27
S 9x6 <u>1</u> 0 A	.2.500 ugL/	9.6 0	4 .4 3 8	.641 5
S i 6 <u>2</u> 15 R	6 10,8 vgL/	4.75	. 7 <b>2</b> 8	.12 18
S 99 <u>1</u> 8n A	4 502 ugL /	4.66 7	4 1 1 8	. 1 003
S4_21r5R	96 10, ugL/	4 .9 70	4.9 4 0	9 46 0,
T i49_33 A	6.1 32 ugL/	. 6320	96.4	462 0
T 9 <u>1</u> 0 8 A	9107 ugL/	. 4 0 2 8	. 1 32 3	6612
V_ 9 4 <u>2</u> 2 A	11 88 ug.L/	. 400518	.46 0 1 3	25 00
Z 6 <u>2</u> 02 n A	4. 1 75 ug L /	.9 9 0	4. 537	. 90 77 7
Y_ 6 _3 00 R	3 7225 ,C Ss / t	9.16 7.5	. 602525	3 7225,
Y_ 4 <u>2</u> 2 3 A	. 857,57C Ss / t	.994 <b>3</b>	. 6 44 28 8	. 857,57
Y_ 6 _3 00 A	9 92 0 00,C Ss / t	4.997	. 4 <b>9</b> 2 57	9 92 0 00,

#### CCV

eh Mammut oe: Mx16 - 10 02 101 ayl sAnm net: N T XX eh Molteisi R vo 1n 033,

cquiD&a e		/2 10 3 : 92 <b>19</b> 1 8	М	Samp	lTypp e∶QC	
Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
g <b>_3</b> A 08	Α	49 . 8	5 ug L /	. 1122	. 022 6	4 9 3 0,
96 _3A1	R	412 1 0,		. 0828	.6 0 1 25	6 46 0,
s9 <u>1</u> A18	Α	4 .9 38	ug.L /	. 4 07	. 0222 0	.1 1 5 7
u 4 <u>2</u> A2 7	Α	49 . 21	ug L/	. 6 21 8	.44 60 0	2 102 ,
B_ 9 <u>2</u> 0 8	Α	4 9. 18	ug.L /	. 9401	. 440 20 1	4. <b>6</b> 2
Ba4 4_ 55	R	4.85	8 ug L /	. 3 3 5	. 6 0 7 88	6 3 7 00,
B e _3 30	R	4.85	8 ug L /	4. 6 10	. 66028	941 10,
Ca _8 58	8 R	412 <b>6</b> ,	,ugL/	6.1 00	. 12 85	6 2 708,
C 6 22 5	A	49 . 3	5 ug L /	. 49 0	. 0212 5	644 0,
C 6 <u>2</u> 2 o 8	Α	494.6	ug.L /	.4 0 <b>3</b> 7	. 9 <b>6</b> 0 57	61 28,
C 6 <u>2</u> r77	Α	49 . 5	8 ug L /	. 41 2 7	. 02155	478,
Cu _ <b>22 37</b>	Α	494.	5 ug L /	. 94 8	. 03 380	69 <b>2</b> 8,
F <b>e</b> 99 <u>2</u> 5	R	412 00,	,ugL/	6.11 1	.9 6 0 32	43 7 50,
K_ 664_ 7	R	12 0 70,	,ugL/	. 2023	. 6 60 7	1 020 0,
L6i _ 107	R	49 . 70	ug.L /	.9 1 1 7	. 03 858	6 <i>2</i> 72 ,
g <u>2</u> M <b>2</b> 5	5 A	12 770,	, wgL /	. 7170	.6000B	9421,
6 <u>2</u> M <i>5</i> 7n	R	4 .9 88	ug.L /	. 44 58	. 911 5	4770,
<u>2</u> M <b>2</b> 000	Α	4.78	ug.L /	. 1517	. 1 02 8	6. 8 <b>5</b>
a 9 _ <b>15</b> 185	R	12 000,	, wgL /	6. 337	. 025 08	9 2 1 <b>6</b> ,
i 6 <u>2</u> 3N	Α	49 . <b>8</b>	-	. 12 58	. 602 25	4 <b>9</b> 0,
Pb <u>2</u> 2 03	Α	. <b>5</b> 0	8 ug L /	. 1203	. 4 02 03	4 .9 1 5
S b 6 <u>2</u> 0 8	3 A	4 .6 88	ug.L /	. 9 022 0	. 46 0 0 8	9. 1 18
S 946 <u>1</u> 0	Α	4 6.4 7	ug.L /	. 7705	.6 1 1 7	9. 6 80
S i 6 <u>2</u> 15	R	412 30,	, wgL /	.1378	. 410	9685
S 99 <u>1</u> 8n	Α	6. <b>5</b> 2	ug.L /	. 9 60 5 5	. <b>0</b> 1 77	9.92 0
S4_21r5	R	49 . 1	8 ug L /	.6 2 0 5	. 960 2 5	49 6 <b>8</b> 0,
T i49_33	Α	49 . 3 0	ug.L /	. 9 00	. 4602 0	62070,
T 9 <u>1</u> 0 8	Α	. <b>15</b> 0	ug.L /	. 9 624 0 5	. 9 <b>91</b> 0 0	. 2 0 5 8
V_ 9 4 <u>2</u> 2	Α	494. 0	ugL /	. 1 21 2	. 4 02 35	<b>4 0</b> 0,
Z 6 <u>2</u> 02 n	Α	49 . 2 0	•	.6 0 175	. 0 327	91 2 1 ,
Y_ 6 _3 00	R	493 75,	,CSs/t	. 3118 5	. 0 10 1 5	493 75,
Y_ 4 <u>2</u> 2 3	Α	9.87,7	7C Ss / t	4.6 2 88	. 60 02 5 <b>6</b>	9.87,7
Y_ 6 _3 00	Α	6 30 808	BC Sis / t	9 6. 7 57	. 03 228	6 30 808

CCB

eh Malm toe: Kn16 - 10 02 101

eh Molteisi R vo 1n 033,

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CCB

eh Malmut ce: KN16 - 10 02 101 ayl sAsım net: N T N1 eh Moleisi R vo 1n 033,

cquiD&a eı	r: t 12	2/2/2 10 3 44 🛭	М		Samp	lTypp e∶QC	
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_2</b> A 08	Α	. 6 0 3	5 ug L	1	. 4 010 25	. 888	.9 18 3
96 _3A1	R	-4. 9 2	8 ugL	1	9. 4 78	. 22 1 8	. 6 32 8
s9 <u>1</u> A18	Α	.966 0 2	ug L	1	. 44 03 0	.6 3 <b>1</b> 5	. 4 0 171
u 4 <u>2</u> A2 7	Α	015	3 ugL	1	. 96 03 1	6.921	.6 1 87
B_ 9 <u>2</u> 0 8	Α	661	3 ugL	1	. 90 573	4. 3 38	. 4 3 18
Ba4 4_ 55	R	0 0 715	7 ugL	1	. 10 202	.1350	6.933
B e _1830	R	00 <b>2</b> 18	8 ugL	1	. 4 <b>9</b> 01 8	. 6 35 5	0 <b>3</b> 770
Ca _13 58	R	<b>13</b>	8 ug L	1	. 4 5 87	. 4 27 8	92 32
C 6 22 5	Α	. 0.202.3	5 ug L	1	. 90 <b>2</b> 0 03	9.912	90 <b>8</b> 78
C 6 <u>2</u> 2 o 8	Α	6 0 031	8 ug L	1	. 9 00 588	6.2 50	. 2157
C 6 <u>2</u> r77	Α	4 0331	ug L	1	. 010 3 77	4. 121	46603
Cu _ <b>32 3</b> 7	Α	<b>C2</b> 5	75 ug L	1	. 400330	. 1322	. <b>2</b> 155
F 🕹 9 <u>2</u> 5	R	4 42	8 ugL	1	4.69 5	9.1 80	.6 3 01
K_ 664_ 7	R	-6. 11	8 ugL	1	.4 71 8	9.1 0 8	- 4.6 0
L6i _ 107	R	. 33	57 ugL	1	. 9 0 533	6. 1 77	9. 2 25
g <u>2</u> M <b>2</b> 0 5	Α	423	3 ugL	1	.4 1 0 7	6. 005	6 3 7 8
6 <u>2</u> M <i>5</i> 7n	R	9 <b>02</b> 1	8 ug L	1	. 96 02 3	4.1 3 8	<b>0</b> 22 8
<u>2</u> M <b>2</b> 0 0	Α	.6 9 0	80 ugL	1	. 4 0 🛭	.9 21	. 121 0
a 9 <b>_ 15</b> 185	R	. 1 25	5 ug L	1	. 46 3	. 9 288	. 1815
i 6 <u>2</u> 3N	Α	<b>C2</b> 17	7 ugL	1	. 40 <b>Z</b>	6.287	6 4 2
Pb <u>2</u> 2 03	Α	.69 0 3	ug L	1	. 021 5	. 1 735	9 2 3 3
S b 6 <u>2</u> 0 8	Α	.6 9 02 2	ug L	1	. 0 1525	.6 80	.69 0 1 0
S 946 <u>1</u> 0	Α	4.4 1 3	3 ugL	1	. 442 8	64.4 5	.4462
S i 6 <u>2</u> 15	R	. 1 30	B ug L	1	. 2323	.1 728	. 32 38
S 99 <u>1</u> 8n	Α	.44 0	85 ug L	1	. 4 0 5 57	.121 7	. 627
S4_21r5	R	<b>40</b> 5	7 ugL	1	. 0 33 5	4. 838	3 333
T i49_33	Α	. 640 5	8 ugL	1	. 6 90 0 <b>8</b>	. 61 7	4.6 7.5
T 9 <u>1</u> 0 8	Α	<b>0</b> 1 <b>3</b> 2	ug L	1	. 03 0 38	.42 27	627
V_ 9 4 <u>2</u> 2	Α	9900 <b>1</b> 7	ug L	1	. 0.022.00	.6 <b>3</b> 2 8	44 3 8
Z 6 <u>2</u> 02 n	Α	<b>0</b> 1	78 ug L	1	. 9 010 7 8	6. 91 7	. 602 75
Y_ 6 _3 00	R	643 72	,C Ss	/ t	4.241 7	.64 0 221	643 72 ,
Y_ 4 <u>2</u> 2 3	Α	9.835,	5C Ss	/ t	6. <b>9</b> 4 8	. 6 <b>9</b> 88	9.835,5
Y_ 6 _3 00	Α	9 3	808,C Ss	/ t	. 5157,0	. 416 17	9 18 808

#### SG8865-004

eh Nammt ce:NK16 - 10 02 101 ayl sAmm net:N T eh Molteisi R vo 1n 033,

cquiD&n er	: t 12/2/	2 10 3 : <b>B</b> 273	М		Samp	lTyep e:Uk w	non n
Elem	Flags	Avg	Units		Stddev	%RSD	Intensity Ratio
g <b>_32</b> 08	Α	. 737 7	′ugL	/	. 837 8	.912	. 7788
96 _3A1	R	6. <b>2</b> 0 9	5 ug L	/	. 2 101	. 33 3 7	4.9 2 0
s9 <u>1</u> A18	Α	-44.94	ug L	/	. 9 57 5	.12 28	. 6032
u 4 <u>2</u> A2 7	Α	9 25 5	5 ug L	/	4.123	. 77 88	2 000
B_ 9 <u>2</u> 0 8	Α	623,	ug L	/	.42 57	9. 738	4.94 5
Ba4 4_ 55	R	. 9 38 8	βug L	/	. 9 1 80	9.66 7	.62 00
B e _3 30	R	4 31	5 ug L	/	.66 0 <b>2</b> 0	.992 0	. 9921
Ca _8 58	R	6 <b>5</b> 3 00,		/	91 7 00,	. 63 35	22 000,
C 66 <u>2</u> 2 5	Α	42 33	ug L	/	. 000 0160	. 4 032 8	661 7
C 6 <u>2</u> 2 o 8	Α	6 31	8 ug L	/	.4 4 5 7	.1 1 53	. 422 8
C 6 <u>2</u> r77	Α	215 7	'ugL	/	9. 41 0	4.1 7 5	.94 2 2
Cu _ <b>22 37</b>	Α	. 1 02 7	′ugL	/	. 3117	. 30 88	. 9128
F e99 <u>2</u> 5	R	6. 85 7	'ug.L	/	6.370	4.285	9.6 0 7
K 664 7	R	99 4 3 00,	ug L	/	1 01 50,	.6 2 <b>3</b>	6 66 5
L6i _ 107	R	.93 57	ug L	/	9.9 52	6. 4 7	. 6 380
g 2MD 5	Α	<b>32</b> 300,	ωgL	/	6 21 00,	.4 8 08	4420,
6 <u>2</u> M <i>5</i> 7n	R	9.4 8	ug L	/	. 3 75	.9 1 08	6.935
<u>2</u> M <b>2</b> 000	Α	- 9.61	ug L	1	. 21 38	. 1 28 5	6. 1 33

Published: 12/32 10 3: 7: 588 AM Pag 6 fl 36



Metals Preparation Benchsheet	Method: 7470 HEVIEWED	S1.0 = 100ul of 1ppm A to 100 mL S5.0 = 500ul of 1ppm A to 100 mL S10.0 = 1000ul of 1ppm A to 100 mL S10.0 = 1000ul of 1ppm A to 100 ml	Thermometer ID: ~(A	Final	Color	N/A N/A N/A N/A	N/A N/A	N/A N/A	4		1			<b>*</b>		The second secon	Transmission of the Control of the C		TOTAL CONTRACTOR CONTR			A	<u></u>			Page: GK146 Revision: 00
Metals	H2SO4: 13768 NH2OH-HCI: YN 12129 1		Water Bath ID: [5]  Digestion Start Time (@ 40 °C): (('.o.') Diges	Initial Initial	MX Meth Anal.	AQ HG EAM 11/25/2013 N/A N/A	HG EAM 11/25/2013	AQ HG EAM 11/25/2013 N/A N/A	HG EAM	HG EAM	HG EAM	HG EAM 1	HG EAM	AQ HG EAM 11/25/2013	HG	AQ HG EAM 11/25/2013	AQ HG EAM 11/25/2013	HG EAM	AQ HG EAM 11/25/2013	AQ HG EAM 11/25/2013	HG EAM	HG EAM	AQ HG EAM 11/25/2013	81.52 -11		Digestion performed by: 1 On: (1-25-(3
Katahdin Analytical Services, Inc.	Reagent Information: HCL: 1/1/4   HN03: 2/2/62   HCL: 1/1/4   KMN04: 1/1/2/66   K25208: 1/1/2/8	Standards/Spiking Information: 1 ppm A: YN W 1452 1 ppm B: YN W 1452 LCSW = 125uL of 1ppm A to 25mL	Spike(S/F) = 25uk of 1ppm $A$ to 25mL	Initial Initial Final	Batch ID Wt/Vol Units	LC2WGK25HGW2 GK25HGW2 0.015 L 0.055 L	GK25HGW2 L	PBWGK25HGW2 GK25HGW2 L	T GK25HGW2	GK25HGW2	GK25HGW2		GK25HGW2						SG9041-007T GK25HGW2 L L L			T GK25HGW2 L	SG9180-011 GK25HGW2 U L L			QA-066-Revision 1 - 09/23/2010 Digestion p

	D 77-77 LYTICAL	Social South South South South South South South Social South Social Soc	Revision: 00
enchsheet Method: 3010	REVIEWED  TOWN 11-77-17  KATAHDIN ANALYTIC	or Clarity Artifacts  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/	Page: GK151
Metals Preparation Benchsheet	Filter Paper:	Clarity Color N/A N/A N/A N/A N/A	On: 11-26-13
H202: ~ ( A	Hot Plate/Block ID: A Start Time/Temp.: 15:11/43 °C End Time/Temp.: 15:11/47 °C Thermometer ID/Pos.: Ack 13/7/5/5/5/5/5/5/5/5/5/5/5/5/5/5/5/5/5/5/	Initial   Color   EAM   11/26/2013   N/A   EAM   11/26/2013   N/A   EAM   11/26/2013   N/A   EAM   11/26/2013   EAM	for 0n: 11
ervices, Inc. 3 5377 HCL: 5542 1	O,OSSO mL Hot Plate/Block ID :   O,OSSO mL Start Time/Temp.:   O   O   O   O   O   O   O   O   O	Final Final   Final	Digestion performed by:_
tahdin Analytical S tion:	ng Information: (ID/Vol): ペット 1844 (TZ (ID/Vol): ハルレ 146 の ) (TZ (ID/Vol): ハルレ 146 の ) (TZ (ID/Vol): ハルレ 146 の ) (TZ (ID/Vol): トレイネ	Initial   Init	33/2010
Ka Reagent Informs HN03: 25 ピー	LCS/Spike LCS/Spiki  G C CLPP-SPK-I  G C CLPP-SPK-I  G C CLPP-SPK-I  Uranium Spik	Sample ID LCSWGK26ICW2 PBWGK26ICW2 SG9049-001 SG9049-001 SG9065-004 SG9081-001 SG9081-001 SG9081-001 SG9081-005 SG9081-005 SG9081-006 SG9180-011 SC493(1-20) & SC403(1-20)	QA-064-Revision 1 - 09/23/2010
		Katahdin Analytical Servi	ces 0000583

## CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

## **QC Summary Section**



LOD N/A N/A

POL 1% 1 % 1 %

Cert No E87604

L.		Result	U 1 %	U1%
Quality Control Report Blank Sample Summary Report		Prep. Date	20-NOV-13	20-NOV-13
Quality C Blank Sample		Anal. Date	21-NOV-13	21-NOV-13
		Anal. Method	SM2540	SM2540
SERVICES		OC Batch	WG134761	WG134768
ANALXIICAL SEKVICES	Total Solids	Samp Type	<b>MBLANK</b>	<b>MBLANK</b>



Quality Control Report Blank Sample Summary Report

Cert No B87604

Ignitability

WG135430 OC Batch Samp Type MBLANK

SW846 1010 Anal. Method

02-DEC-13 Anal. Date

Prep. Date N/A

> 71. Deg. C Result

71. Deg. C POL

TOD N/A





Quality Control Report Laboratory Control Sample Summary Report

Total Solids

RPD		
Acceptance Range	80-120	80-120
Recovery	66	26
Result	.68	87.
Spike Amt. Result	06	96
Units	%	%
Prep Date Units	20-NOV-13	20-NOV-13
Analysis Date	21-NOV-13	21-NOV-13
QC Batch	WG134761	WG134768
Samp Type	TCS	CCS
Lab Sample Id	WG134761-2	WG134768-2

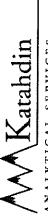




Quality Control Report
Laboratory Control Sample Summary Report

# Ignitability

RPD	
Acceptance Range	80-120
Recovery	100
Result	27.
Spike Amt. Result	27
Units	Deg. C
Prep Date Units	N/A
Analysis Type QC Batch Date	02-DEC-13
QC Batch	WG135430
Samp Type	TCS
Lab Sample Id Samp T	WG135430-3



	Cert No E87604			- CATAGORIA CANANA CANA
			RPD Limit	20
			RPD(%)	0
			Duplicate Result	86.
	Report		Sample Result	86.
	Control		Result Units	%
	Quality Control Report Duplicate Sample Summary Report		Analysis Date	21-NOV-13
	80		QC Batch	WG134761
atahdir	L SERVICES		Original Sample ID	SG9044-9
/// Kataho	ANALYTICAL SERVI	Total Solids	Duplicate Sample ID	WG134761-4

### **Sample Data Section**

### KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS (Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

- U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.
  - Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
- E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
- J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
- I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.
- A-4 Please refer to cover letter or narrative for further information.
- MCL Maximum Contaminant Level
- NL No limit
- NFL No Free Liquid Present
- FLP Free Liquid Present
- NOD No Odor Detected
- TON Threshold Odor Number
- H\_ Please note that the regulatory holding time for \_\_\_\_\_ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. \_\_\_\_\_ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
  - H1 pH
  - H2 DO
  - H3 sulfite
  - H4 residual chlorine
- The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.
- The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M Katahdin

ANALYTICAL SERVICES



# Report of Analytical Results

Client: Constance Lapite

**AECOM Environment** 

RS-SB1-111413

Total Solids Parameter

SG9044-1 Lab Sample ID:

Date Received Client PO: need PO
Project: NAVSTA Newport CTO W Date Sampled Report Date: 02-DEC-13 **SDG:** WE40-1 Matrix Wakefield,MA 01880 701 Edgewater Drive Sample Description

	Footnotes	The same of the sa
V-13	Prep. Date	20-NOV-13
18-NOV-13	Prep. Method Prep. Date Footnotes	SM2540G
14-NOV-13	OD Anal. Method QC.Batch Anal. Date Prep. Method	WG134761 21-NOV-13 06:51:42
$_{ m SF}$	QC.Batch	WG134761
	Adj MDL Adj LOD Anal. Method QC.Batch	SM2540G
	Adj LOD	N/A
	Adj MDL Adj Lo	
	Result Adj LOQ	1
	Result Adj LO	86.%

http://www.katahdinlab.com







# Report of Analytical Results

AECOM Environment Client: Constance Lapite

701 Edgewater Drive Wakefield, MA 01880

Lab Sample ID: SG9044-2

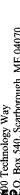
Report Date: 02-DEC-13 Client PO: need PO

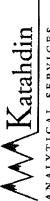
**Project:** NAVSTA Newport CTO W SDG: WE40-1

Sample Description	.1	Date Sampled	Date Received
RS-SB2-111513	SL	15-NOV-13	18-NOV-13

	Footnotes	
7-13	Prep. Date	0G 20-NOV-13
18-NOV-13	Prep. Method Prep. Date Footnotes	SM254
15-NOV-13	ate	15:90
SI	QC.Batch	WG134761
	Adj MDL Adj LOD Anal. Method QC.Batch	N/A SM2540G WG134761 21-NOV-13 (
	Adj LOD	N/A
	Adj M	
	Adj LOQ	_
	Result Adj LOQ	84. %
513	TO THE REAL PROPERTY OF THE PERTY OF THE PER	

Total Solids Parameter







# Report of Analytical Results

AECOM Environment Client: Constance Lapite

Wakefield,MA 01880 701 Edgewater Drive

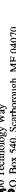
Lab Sample ID: SG9044-3

Report Date: 02-DEC-13

**Project:** NAVSTA Newport CTO W SDG: WE40-1 Client PO: need PO Sample Description

Sample Description RS-SB3-111513	<b>4</b>					<u>Matrix</u> SL	Date Sampled 15-NOV-13		Nate Received 8-NOV-13	
ameter Result	Result	Result Adj LOQ	Adj MDL	Adj MDL Adj LOD Anal.	Adj MDL Adj LOD Anal. Method QC.Batch	QC.Batch	Anal, Date	Prep. Method Prep. Date Footnotes	Prep. Date	Footnotes
al Solids	% '06			N/A	SM2540G	WG134761	WG134761 21-NOV-13 06:52:01	SM2	540G 20-NOV-13	

Total Solids Parameter





# Report of Analytical Results

STITE BIOM Cert No E87604

Client: Constance Lapite AECOM Environment

Report Date: 02-DEC-13 Lab Sample ID: SG9044-4

Client PO: need PO Project: NAVSTA Newport CTO W SDG: WE40-1	Matrix Date Sampled Date Received	SL 18-NOV-13 18-NOV-13
701 Edgewater Drive Wakefield,MA 01880	Sample Description	RS-SB4-111813

Prep. Date	20-NOV-13
Prep. Method	SM2540G
Anal. Date	21-NOV-13 06:52:10
QC.Batch	WG134761
Anal. Method	SM2540G
Adj LOD Ana	N/A
Adj MDL	
Adj LOQ Adj MDL Adj LOD	1
Result	86.%

Total Solids Parameter

Footnotes





STEED STORY Cert No E87604

Client: Constance Lapite

AECOM Environment Wakefield,MA 01880 701 Edgewater Drive

Sample Description RS-SB5-111813

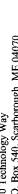
Total Solids Parameter

Report Date: 02-DEC-13 Lab Sample ID: SG9044-5

Client PO: need PO

**Project:** NAVSTA Newport CTO W **SDG:** WE40-1

			- Inches
		Footnotes	7-13
Date Received	V-13	Prep. Date	20-NOV-13
	18-NOV-13	Prep. Method Prep. Date Footnotes	SM2540G
Date Sampled	18-NOV-13	Adj MDL Adj LOD Anal. Method QC.Batch Anal. Date Prep. Methoc	WG134761 21-NOV-13 06:52:19 SM2540G 20-NOV-13
Matrix	ST	QC.Batch	WG134761
		Adj MDL Adj LOD Anal. Method QC.Batch	SM2540G
		Adj LOD	N/A
		ssult Adj LOQ	
اء		Result	86. %





AECOM Environment Client: Constance Lapite

Wakefield, MA 01880 701 Edgewater Drive

Report Date: 02-DEC-13 SG9044-6 Lab Sample ID:

Client PO: need PO
Project: NAVSTA Newport CTO W
SDG: WE40-1

Sample Description RS-SB6-111513	æl					Matrix SL	Date Sampled 15-NOV-13	_,	Date Received 8-NOV-13		
ameter	Result	Adj LOQ	Adj MDL	Adj LOD	Adj MDL Adj LOD Anal. Method QC.Batch	QC.Batch	Anal, Date	Prep. Method Prep. Date Footnotes	Prep. Date	Footnotes	
al Solids	% .06			N/A	SM2540G WG134761 21-NOV-13 0	WG134761	6:52:29	2:29 SM2540G 20-NOV-13	)G 20-NOV-13	I ANGEL I (WARRELL)	i

20-NOV-13

SM2540G

WG134761 21-NOV-13 06:52:29

Total Solids **Farameter** 



Client: Constance Lapite

Lab Sample ID: SG9044-7

		M C		Date Received
02-DEC-13	need PO	NAVSTA Newport CTO W	WE40-1	Matrix Date Sampled
Report Date:	Client PO: need PO	Project: NAVSTA	SDG:	Matrix
-	701 Edgewater Drive	Wakefield,MA 01880		Sample Description

Footnotes	No. of the second secon
Prep, Date	40G 20-NOV-13
Prep. Method Prep. Date Footnotes	SM25
Anal. Date	WG134761 21-NOV-13 06:52:50
QC.Batch	WG134761
Adj MDL Adj LOD Anal. Method QC.Batch	SM2540G WGI.
Adj LOD	N/A
Adj MDL	The state of the s
Adj LOQ	
Result	87. %

18-NOV-13

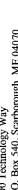
14-NOV-13

SL

RS-SB7-111413

Total Solids Parameter

http://www.katahdinlab.com







AECOM Environment Client: Constance Lapite

701 Edgewater Drive

Wakefield, MA 01880

Lab Sample ID: SG9044-8

Report Date: 02-DEC-13 Client PO: need PO

**Project:** NAVSTA Newport CTO W **SDG:** WE40-1

Sample Description RS-SB8-111413	٦l					<u>Matrix</u> SL	Date Sampled 14-NOV-13		Date Received 8-NOV-13	
ameter Result Ad	Result	07!	Adj MDL	Adj LOD	Adj MDL Adj LOD Anal. Method QC.Batch	QC.Batch	nal.	Prep. Method Prep. Date Footnotes	Prep. Date	Footnotes
al Solids	78. %	posit		N/A	SM2540G	WG134761	WG134761 21-NOV-13 06:52:59	3 06:52:59 SM2540G 2	20-NOV-13	

Total Solids Parameter



Client: Constance Lapite

AECOM Environment 701 Edgewater Drive

Wakefield, MA 01880

Report Date: 02-DEC-13 Lab Sample ID: SG9044-9

Client PO: need PO

Project: NAVSTA Newport CTO W SDG: WE40-1

Sample Description FD-SO-111813	-l					Matrix SL	Date Sampled 18-NOV-13		Date Received 8-NOV-13	
ameter	Result	Result Adj LOQ	Adj MDL	Adj MDL Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes

20-NOV-13

SM2540G

WG134761 21-NOV-13 06:53;33

SM2540G

N/A

86. %

Total Solids Parameter

http://www.katahdinlab.com

http://www.katahdinlab.com





# Report of Analytical Results

AECOM Environment Client: Constance Lapite

Lab Sample ID: SG9044-10 Report Date: 02-DEC-13

		Footnotes
	Date Received 18-NOV-13	Prep. Date
TO W	Date Receiv 18-NOV-13	Prep. Method Prep. Date Footnotes
lient PO: need PO Project: NAVSTA Newport CTO W SDG: WE40-1	Date Sampled 08-NOV-13	Adj MDL Adj LOD Anal. Method QC.Batch Anal. Date P
Client PO: need PO Project: NAVSTA SDG: WE40-1	Matrix SL	QC.Batch
. •		Adj LOQ Adj MDL Adj LOD Anal. Method QC.Batch
		Adj LOD
		Adj MDL
		Adj LOQ
701 Edgewater Drive Wakefield,MA 01880	<u>on</u>	Result
701 Edge Wakefield	Sample Description TB-SO-110813	ameter

20-NOV-13

SM2540G

WG134768 21-NOV-13 07:08:58

SM2540G

N/A

% 001

Total Solids Parameter



AECOM Environment 701 Edgewater Drive Client: Constance Lapite

Wakefield,MA 01880

SG9180-11 Report Date: 03-DEC-13 Lab Sample ID:

Project: NAVSTA Newport CTO W Client PO: need PO

**SDG:** WE40-1

Sample Description IDW-GW-112113						<u>Matrix</u> AQ	Date Sampled 21-NOV-13	Date Received 21-NOV-13	ceived		
ameter	Result Adj LOQ	Adj LOQ	Adj MDL	Adj LOD	Adj MDL Adj LOD Anal. Method QC.Batch	QC.Batch	Anal. Date	Prep. Method Prep. Date Footnotes	Prep. Date	Footnotes	
tability	>71. Deg. C 71.		71.	N/A	SW846 1010	WG135430	71. N/A SW846 1010 WG135430 02-DEC-13 10:32:00	🐳	N/A	- The state of the	1

Parameter Ignitability http://www.katahdinlab.com

#### **Raw Data Section**

TOTAL SOLID Nov 21 20 Batch:
'AL ov

ľype	Batch F	Prep Date	Tare	Initial	Final	λq	Date	Raw TS Rep	TS Rec	Recovery RPD
ž	WG134761 2	0-NOV-13	1.325 g	16.4494 g	14.7087 g	ΚÞ	21-NOV-13	88.4910 88.	6/0	
WG		0-NOV-13	1.3101 g	13.217 9	2.3369 g	ΚP	21-NOV-13	8.6240 8.6	9/0	
S.		0-NOV-13	1.323 g	17.5467 9	2.9049 g	ΚÞ	21-NOV-13	9.7500 9.8	%	
3		0-NOV-13	1.3259 g	20.5264 g	2.6763 g	ΚĐ	21-NOV-13		9/0	
ÐM		0-NOV-13	Б	n d	5 g	ΚP	21-NOV-13	100.0000 100	0/0	
WG1		0-NOV-13	50	Sr Di	5 10	ΚP	21-NOV-13	100.0000 100	0/0	
WG1		0-NOV-13	Б	rc Di	رن ن ن	ΚP	21-NOV-13	100.0000 100	0/0	
WG1		0-NOV-13	5	57 G	ις O	ΚÞ	21-NOV-13	100,0000 100	0/0	
WG1		0-NOV-13	1 8	5 Q	מ	ΚP	21-NOV-13	100.0000 100	a <b>/o</b>	
WG13		0-NOV-13	po H	57 G	5 G	ΚĐ	21-NOV-13	100.0000 100	o/o	
WG134		0-NOV-13	p.	5 9	n Di	ΚĐ	21-NOV-13	100.0000 100	9/0	
WG134		20-NOV-13	1.3272 g	22.0591 g	19.0937 g	ΚÞ	21-NOV-13	85.6960 86.	%	
WG134		0-NOV-13	1.3183 g	22.6928 g	19.2306 g	ΚĐ	21-NOV-13	83.8020 84.	ە/ە	
WG134		0-NOV-13	1.3321 g	23.0418 g	20.8643 g	ΚP	21-NOV-13	89.9700 90.	o/o	
WG134		0-NOV-13	1.3266 9	20.1449 g	17.4789 g	ΚP	21-NOV-13	85.8330 86.	9/0	
WG13		0-NOV-13	1.331 g	21.1925 g	18.4238 g	ΚP	21-NOV-13	86.0600 86.	0/0	
WG134		0-NOV-13	1.3244 g	21.8643 g	19.7209 g	ΚP	21-NOV-13	89.5650 90.	0/0	
WG13		0-NOV-13	1.3259 g	25.3812 9	22.3243 g	ΚP	21-NOV-13	87.2920 87.	9/0	
WG13		0-NOV-13	1.3182 g	26.7063 g	21,1044 g	KP	21-NOV-13	77.9350 78.	٥/١٥	
WG13		0-NOV-13	1.3126 g	21.7142 g	18.8587 g	ΚP	21-NOV-13	86.0040 86.	0/0	
WG1		0-NOV-13	1.3278 g	1.8197 g	1.3274 g	ΚÞ	21-NOV-13	-0.0810 1 %		
WGI		20-NOV-13	1.3157 g	5.5884 g	5.1096 g	ΚP	21-NOV-13	88.7940 89.	90	
WG1	, ,	0-NOV-13	1.3169 g	18.4392 g	2.8187 g	КP	21-NOV-13	8.7710 8.8	olo	2
MG1	24761	20-NOV-13	1.3156 0	26 0808 4	22 7167 G	KD	21 - MOW - 13	86 4160 86	اره	~

Dhadeau pate:\_

Accepted by:\_

Entered by:

SG8986-1 SG8986-1 SG8986-1 SG9044-9

WG134761-1 WG134761-2 WG134761-3 WG134761-4

Comments:

			KATAHDIN ANALYTICAL SERVICES, INC.	L SERVICES, IN		
Y:S	216 - PQL.: 0.10%	%		TOTAL VOLATILE SC	TOTAL VOLATILE SOLIDS: SM2540 G / E160.4 - PQL	0.4 - PQL
Ä		ANALYST OUT:	Kf	BALANCE ID: OHAUS - SN: 112401631	SN: 112401631	
		DATE OUT: [1 2	11/21/13	TRUE WT (g)	INITIAL WT (g)	FINAL
ľ		TIME OUT: 0515	15	2.0000- 1.00UC	0.9999	. aso
- 11		TEMPOUT: 163	<	5.0000 D.awo	9666147	49.9
Oven ID: 167N0042		Muffle Oven ID:	030807 (assigned)	10.0000	99996	80
CHECKED BY:	gr.	DATE:	(2413	100.0000	99.995	200
SAMPLE ID	OI HSIO	DISH WT (g)	DISH WET WT (g)	DISH DRY WT (a)	DISH/ASH WT (a)	
124761 - 122WA	#1				(6)	
2012-	2A					
S689810-1	3A					
9001-	<i>U</i> h					
2	<del>US</del>					
5- 1-3	6A					
S69013-4	7A	1,000%	r	V		
5-	84		h	S		
<u>ق</u> ا	9.4		6	15		
7)	16A	1		V		
2	₩.		<b>)</b> (,	0		
6-	12.A		5	6		
01-10	13A	1	6	5		
569044-1	MA					
-2	S <del>t</del> A					
~	104					
h_	74					
4	T81					
9-	19.A					
()	20H					
×	214					
-9	+/22					
Jan - 9200	234					7
%अल्डन	24.A	(.325D	१७.५५५५	14.787		T T

KSZZZJD

13

QAWL712

					שמ	Batti: WGI34798	0						
Sample	Matrix	Type	Batch	Prep Date	Tare	Initial	Final	by Da	Date	Raw TS	Rep TS	Recovery	RPD
SG8903-18	$_{ m SL}$	SAMP	WG134768	20-NOV-13	1.308 g	11.5788 g	10.8776 g	KP 21	21-NOV-13	93.1730	ω, ,,		
SG8999-24	$_{ m SI}$	SAMP	WG134768	20-NOV-13	1.327 g	13.5793 g	12.4622 g	KP 21	21-NOV-13	90.8820	91. %		
SG9002-1	SL	SAMP	WG134768	20-NOV-13	1.3078 9		9.8555 g	KP 21	21-NOV-13	79.8410	80.%		
SG9002-2	$_{ m ST}$	SAMP	WG134768	20-NOV-13	1.3251 g	20.6888 g	770		21-NOV-13	92.6000	93.%		
SG9002-3	ST	SAMP	WG134768	20-NOV-13	1.327 g	14.2966 g		KP 21	21-NOV-13	89.0180	% %		
SG9002-4	$_{ m SL}$	SAMP	WG134768	20-NOV-13	1.3095 g	13.9336 g	מ		21-NOV-13	91.2990	91. %		
SG9002-5	SL	SAMP	WG134768	20-NOV-13	1.3143 g	17.7766 g			21-NOV-13	90.9910	91.%		
SG9002-6	SI	SAMP	WG134768	20-NOV-13	1.3124 g			KP 21	21-NOV-13	82.0060	82.%		
SG9002-7	SL	SAMP	WG134768	20-NOV-13	1.325 g	18.5075 g			21-NOV-13	92.7590	93.%		
SG9013-11	SL	SAMP	WG134768	20-NOV-13		5. D	5 .g		21-NOV-18	100.0000	100 %		
SG9013-12	SL	SAMP	WG134768	20-NOV-13	1 9		n D		21-NOV-13	100.0000	100 %		
SG9013-13	SL	SAMP	WG134768	20-NOV-13	1 9	5 g	5 g	KP 21	21-NOV-13	100.0000	100 %		
SG9013-14	SL	SAMP	WG134768	20-NOV-13	19		5 g		21-NOV-13	100.0000	100 %		
SG9013-15	SL	SAMP	WG134768	20-NOV-13	L D		5 g		21-NOV-13	100.0000	100 %		
SG9013-22	$_{ m ZI}$	SAMP	WG134768	20-NOV-13	⊔ نو	5 9	5 9	KP 21	21-NOV-13	100.0000	100 %		
SG9044-10	SI	SAMP	WG134768	20-NOV-13	19	5 g	5 9		21-NOV-13	100.0000	100 %		
SG9048-1	ST	SAMP	WG134768	20-NOV-13	1 g	5. g	5 g		21-NOV-13	100.0000	100 %		
8G9060-1	SL	SAMP	WG134768	20-NOV-13	1.3251 g	13.897 g	12.2854 g	KP 21	21-NOV-13	87.1810	87. %		
SG9060-2	SF	SAMP	WG134768	20-NOV-13	1 9	5 G	5 g	KP 21	21-NOV-13	100.0000	100 %		
SG9061-1	ST	SAMP	WG134768	20-NOV-13	1.3058 g	19.6183 g	16,8491 g	KP 21	21-NOV-13	84.8780	85.%		
WG134768-1	$S\Gamma$	MBLANK	WG134768	20-NOV-13	1.3294 g	1.8255 g	1.3293 g	KP 21	21-NOV-13	-0.0200	% H		
WG134768-2	$_{ m SF}$	LCS	WG134768	20-NOV-13	1.3226 g	5.1012 g	4.6077 g	KP 21	21-NOV-13	86.9400	87. %	76	
WG134768-3	$_{ m ST}$	DOP	WG134768	20-NOV-13	1.3213 g	14.8095 g	13.9379 g	KP 21	21-NOV-13	93.5380	%.%		0
WG134768-4	$_{ m ST}$	DUP	WG134768	20-NOV-13	1.3269 g	25.5251 g	21.7713 g	KP 21	21-NOV-13	84.4870	84. %		0
Comments:													

Accepted by:\_

Entered by:

TF2-004/5-SB1068-0204
TF2-003-SB1017-011.6
MS/MSD
Oil, TS = %100
Trip Blank, no TS jar
tb, no ts jar
SG8903-18
SG8903-18
SG8903-18
SG8903-18

8G8999-24
8G9002-1
8G9002-4
8G9002-4
8G9003-4
8G9003-4
8G9013-22
8G9004-10
8G9013-22
8G9004-10
8G9013-22
8G9002-4
8G134768-1
8G134768-1
8D16ere
Butere

Date   1972   Stallweed   St	TOTAL SOLIDS: ASTM D2216 - PQL: 0.10%	M D2216 - PQL: 0.10		ANALYTICA	KATAHDIN ANALYTICAL SERVICES, INC.	C.	
DATE NI.	ANALYST IN: 14		ANALYST OUT:		DAI ANCE IS. CUA.	Julius, Similaratu G / ETC	60.4 - PQL 0.10%
TIME IN:   1332   TIME OUT:   1520   Accord   LOCKS		113	12/11		TRIE WT (A)	5 - 5N: 112401631	
Court   Color   Colo					2000   OVE	infiliAL WI (g)	FINAL WT (g)
Checked by   Child (1994)   Child					6 0000 - 10000 A	0.26.	1.000
CHECKED BY: CAN DATE: 1/34/1/3   100,0000   91,79915	Oven ID: 167N	212	<b>I</b>		10 0000	2004-617	30000
SAMPLE ID  UNG 134 785 - 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	CHECKED	8	11/2	2	400,000	1000 b	1.17.7
West   14 miles   15 miles   16		UI HSIU	LI WIT (2)		100.000	19,760	99.4741
\$68903-18 36 \$58902-1	1		DSD W (g)	H WET WT (g)	DISH DRY WT (g)	DISH/ASH WT (g)	TIME
28 1 28 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>						
256 268 368 368 368 368 368 368 368 368 368 3	1	$\vdash$					
256 268 268 268 198 198 198 198 198 198 198 198 198 19	H	-					
198   198	4 848968 1 3689						
255 1085 1085 1085 1188 1003 1 1584 1 1584 1 1584 1 1585 1	569002-1						
SS	1	72					
128   100%   1   5   5   5   5   5   5   5   5   5	-3	88					
1085   1285	71	6		7.00			
128   100%   1   5   1   1   5   1   1   5   1   1	5-	F.					
28   100, 1   5   1   5   1   5   1   5   5   5	و	<u></u>					
J.R.   1003   1   5   1   5   1   5   1   5   1   5   1   5   1   5   5	4-7	12.83					
148   1	69013-	13.83	100%	·	8		
SB	2) - 1	14,8		5	1		
16R   1 S 17R   1 S 18G   1 S 28G   1 S 22G   1 S 22B   1 S 22B   2 S	-13	153		S	\ \		
MR 1 5 MR 4 1 5 MR 1002 1 5 208 1 5 218 228 18 1 5	ナー	<u> </u>		Š	2		
	-15	: M7/R		8	5		
2003 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	72- 7-52	KB.	) +	S	15		
288 1	56 YOYG-10	RKS	1 %00)	2	2		
218 228 118 1 5 238 248	Seg 048-1	283	-	5	15		
228 18 1 ST 238 24B	-11	218					,
23B 24B	1	228	18 1	5	6		10.
	1001						11/2/1/2
	0-10	V					

[ ]

[ ]

Date: | 2 | 5 | 1 S Accepted by:

WET CHEMISTRY BATCH REPORT Dec 02 2013, 01:45 pm Batch: WG135430

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

TS (%) Rpt Result

Rpt. DF Result

Initial Amt. Final Amt.

Samp Type Method

Sample

Date Analyzed: 02-DEC-13 Parameter: Ignitability

Analyst Initials: ZS

71 71 71 71

71.

71.

100

%Rec

RPD

Adj PQL

MDL

PQL

A A A

>71. Deg. C >71. Deg. C 27. Deg. C

71 71 26.97

1.0000mL 1.0000mL 1.0000mL

1.0000mL 1.0000mL 1.0000mL

SW846 1010 SW846 1010 SW846 1010

SG9180-11 SAMP WG135430-1 MBLANK WG135430-3 LCS

Comments:

WG135430-1 WG135430-3

SG9180-11 SG9180-11

Katahdin Analytical Services 0000609

Entered by:

KATAHDIN ANALYTICAL SERVICES, INC. - FLASHPOINT - CLOSED CUP LOGBOOK

Date 13.02.13 Corrected Flashpoint = (Observed Flashpoint in  $^{\circ}$ C) + 0.033 (760 - the ambient barometric pressure in mm Hg).

WL-029 - REVISION 1 - 10/06/2010

0000039

Analyst Reviewed By